OCT 2015

Version 1.1

Threat Tactics Report:

Russia

TRADOC G-2 ACE Threats Integration

DISTRIBUTION RESTRICTION:

Approved for public release; distribution is unlimited.

Introduction

In the last seven years, Russia has reasserted itself as a military force in Eastern Europe and the Caucasus. With the 2008 military incursion into Georgia and the 2014 seizure of Crimea and support for pro-Russian separatists in Ukraine, Russia has assumed a more aggressive, interventionist stance in Europe. In the effort to influence events in Ukraine, the Russians have used what the US Army defines as "Hybrid Warfare" to infiltrate, isolate, and dominate eastern Ukraine and Crimea. This is all a part of the strategy of what can be called "Indirect Action"—the belief by the Russians that they reserve the right to protect ethnic Russians and interests in their former states from domination by Western powers and NATO.

It is important to note that the Russians do not use the terms Hybrid Warfare or Indirect Action to describe these tactics. These are terms that the Western media, think tanks, and analysts have developed to define this method of warfare. The Russians have used terms such as *indirect*, *asymmetrical*, and *non-linear* when discussing what is commonly referred to as Hybrid Warfare. Hybrid Warfare is a part of the strategy/policy of what can be called Indirect Action that the Russians believe is essential to protect their interests in their former satellite states (referred to as "the near abroad"). To the Russians, using covert methods, information warfare (INFOWAR), and special operations troops to make up for conventional disadvantages has been the norm for decades. Because the terms Hybrid Warfare and Indirect Action are familiar, they will be used throughout this report in reference to Russian indirect, asymmetrical, and nonlinear tactics.

This Threat Tactics Report (TTR) will focus on three distinct operations—Georgia in 2008, Crimea in 2014, and eastern Ukraine in 2014–2015. The TTR will present and analyze the tactics used in these conflicts, the lessons learned, and adjustments made by the Russian Armed Forces.

Executive Summary

- The Russians have employed Hybrid Warfare and Indirect Action to counter NATO and Western influence for over seventy years.
    - Hybrid Warfare is the use of political, social, criminal, and other non-kinetic means employed to overcome military limitations.[1]
    - Indirect Action can be defined as the need for Russia to defend its interests and sphere of influence in its former states and satellites.
- Although Western observers characterize the actions of Russian Armed Forces as hybrid warfare, the Russian Army practices its long-established tactics with new attention to advanced developments in many areas such as precision weapons, command and control (C2) and intelligence surveillance and reconnaissance (ISR), and electronic warfare (EW), and including direct and indirect application of these. The nature of these tactics is derived from Russia's

focused assessment of specific neighborhood threats and its long-time focus on security superiority in its Near Abroad.

- Russia continues to maintain military bases in its former states to exert influence and control.
- The Russians used conventional tactics in Georgia in 2008 and used indirect and asymmetric approaches in Crimea in 2014 and eastern Ukraine in 2014-2015.
- The Euromaidan protests and overthrow of the Yanukovych government triggered the Russian incursion into Crimea and the seizure of the naval base at Sebastopol.
- Russian intelligence operatives and SPF were instrumental in the success of the Crimea operation and are now assisting pro-Russian separatists in eastern Ukraine.
- Russia may use these tactics in other areas such as Moldova, Transniestra, and the Baltic states.

This (U) **Threat Tactics Report (TTR)** was produced in accordance with (U) ***Intelligence Community Directive Number 203: Analytical Standards*** (Effective: January 2015). This TTR was coordinated with:

- Headquarters, Department of the Army DCS G-2—Mr. Dana Dillon
- Asymmetric Warfare Group (AWG)—Mr. Dale E. Owen, Mr. Vladimir Tumanoff
- Foreign Military Studies Office (FMSO)—Mr. Tom Wilhelm
- US Army Training and Doctrine Command (TRADOC)—Mr. Gerald Leverich
- National Ground Intelligence Center (NGIC)—Mr. Michael Capps
- United States European Command (EUCOM)—Mr. Gary Dickmeyer

Comments and feedback are welcome.

Jon S. Cleaves
Director, TRADOC G-2 ACE Threats Integration

Cover photo: Russian Airborne Troops, 5 April 2015.

Section 1: Russia after the Soviet Union

After the dissolution of the Soviet Union in 1991, Russia went through many changes. The government, society, and the economy went through drastic overhauls. The Russian military also underwent major changes and was beset by low morale, low pay, and outdated equipment and tactics. Russia's performance in the First Chechen War of 1994–1996 was a prime example of this. The Russian Army did poorly, being bested in the initial conventional fight. After this humiliating defeat at the hands of the Chechens, Russian military leaders saw a need to adjust their operational approach and focus military thought to meet current realities. The Second Chechen War of 1999–2000 showed that the Russians could adapt and learn from previous mistakes. During this conflict, the Russians allowed for some autonomy and improvisation by commanders on the battlefield. The result was much more favorable to Russia, and the junior officers and noncommissioned officers (NCOs) who fought in this war gained valuable battlefield experience.

After Boris Yeltsin relinquished power in 1999, his successor Vladimir Putin began to reassert Russia's role in European and world affairs. Putin began by improving economic and military relations with the former Soviet states. He renewed agreements with Armenia, Belarus, and Ukraine to continue to allow Russian naval and land forces to maintain bases and continue military cooperation. By 2001, Russia had become an integral part of the defense of its former states through economic and military treaties. This strategy was continued by Dmitri Medvedev during his tenure as president. The worldwide emphasis on defeating Islamic terrorism also allowed for Russia to expand its military footprint to fight potential terrorists or counter American influence in Afghanistan and the Caucuses.

Russian Strategy and Goals

Russian foreign policy and military strategy are a reflection of the Soviet concept of War Communism and later total war—bending the political, economic, cultural, industrial, agricultural and military might, indeed the might of the entire population, toward achieving a pressing national goal. Accordingly, Putin has established a practice of constant military readiness and a bellicose and confrontational diplomatic posture. The Russians believe that they must counter the power and influence that was lost with the dissolution of the Soviet Union and the loss of former Soviet republics and buffer states. Key components of this are the protection of ethnic Russians, protection of Russian economic interests, continued occupation of former naval and army bases. The Russians maintain bases or facilities in Azerbaijan, Armenia, Kazakhstan, Kirgizia and Tajikistan. The Russians also maintain bases in the disputed areas of Abkhazia, South Ossetia, and Crimea- areas which the Russians consider part of Russia proper. This provides the Russians with an ability to react to crises in these areas and serves as a deterrent to military operations by neighboring countries.

Hybrid Warfare is the use of political, social, criminal, and other non-kinetic means employed to overcome military limitations. The Russians refer to this warfare by various names—indirect, asymmetrical, and non-linear warfare. As seen in Crimea and the Donbass region of Ukraine, the Russians and their Ukrainian separatist allies have used these tactics to further the Russian goal of influencing events in the "Near Abroad."

Key Alliances

Through economic, military, and diplomatic means the Russians have attempted to reestablish the old Soviet sphere of influence to willing partners (Armenia, Belarus, Chechnya, Kazakhstan, Tajikistan, and Turkmenistan) and by covert and overt means with adversarial states (Estonia, Georgia, Latvia, Lithuania, Moldova, Poland, and Ukraine). Putin frequently uses the protection of ethnic Russians living in former Soviet states (the so-called "Russian Diaspora") as an excuse for economic and military pressure and covert activities.

Putin will also use the threat of NATO expansion as an excuse to flex Russian military muscle. Any attempt by former Soviet satellites to join or partner with NATO or the United States is met with vehement protest. Russia views this as simply a continuation of Cold War tactics and rationalizes that its reactions are merely defensive measures against Western aggression.

Russia has also forged military and political alliances with Iran, Syria, and Venezuela, as well as strengthening ties with longtime allies Cuba and Nicaragua.

Organizational Size and Structure

Under Putin, the Russian Army began implementing a new concept of greater autonomy and decentralization of command. The Army was forced to reorganize the old Soviet structure and command and control (C2) relationships that had been in place for over eighty years. The old division structure was replaced with a force that relied on independent brigades that could fight autonomously.[2] Restructuring began in 2008 under Defense Minister Anatoliy Serdyukov. The Russian Army had 24 divisions consisting of three tank, sixteen motorized rifle, five gun artillery divisions, and two division-level bases in Tajikistan and Armenia. There were also 12 Independent Brigades that included Airborne and Spetsnaz troops. The current Russian Army consists of one machine gun artillery division in the Kuril Islands, four tank, 35 motorized rifle, and one fortifications brigade. Another overhaul and reorganization was directed at the personnel system. An effort was made to attract more so-called "contract" or volunteer soldiers. Unlike the conscript soldiers, contract soldiers volunteered for two or three years, were paid better, and were more likely to re-enlist or decide to make the army a career. The Army also established an NCO professional development program that consisted of courses designed to teach leadership and management skills. The schools also emphasized initiative and decision making. This new NCO corps has added a degree of professionalism in the Russian Army that has improved both morale and performance, although it is still far behind the armies of Western Europe and the United States.

The officer corps was also overhauled, with an emphasis on leadership, training, and integrity. In the past, the Soviet Army officer education system emphasized political reliability and loyalty. The Soviet system also discouraged reporting defects or issues with training or readiness, and the net result was a culture that tolerated falsification of reports and reluctance to fix deficiencies. The new Russian officer education and professional development system concentrates on competence, training, and empowering subordinates. The C2 systems were also streamlined. Junior commanders were free to make decisions on the battlefield without having to ask for permission to make the most basic tactical moves. Finally, the Russians upgraded their communications systems and put in redundant systems to

ensure that commanders could talk to subordinates without the communications problems that plagued the Army in the 1990s.[3]

Section 2: Russian Tactics and Techniques

The Russians will use political, social, information warfare (INFOWAR) and other nonkinetic means to increase military capabilities. Covert intelligence operators will infiltrate the targeted country, recruit operatives and spies, and establish an intelligence and insurgent network. Along with this, cyber attacks, electronic warfare (EW), and INFOWAR, will be used to spread unrest and gain support to legitimize future kinetic options. Once the necessary groundwork has been laid, the Russians can then assist the "independent" forces that will eventually form into a full blown insurgent force. This allows the Russians to overcome military shortcomings and gives them—in their view—plausible deniability on the world stage.

Georgian–Russian War 2008

In Georgia in 2008 and Ukraine today, the Russians used a sophisticated, well-planned, and gradual strategy to establish an insurgent force that is supported by a robust information warfare program to maximize results with minimum troops and equipment.

Figure 1. Map of countries that border Russia

After the defeat in Chechnya in 1996, Russia built up the military and increased capability, improved tactics, and streamlined C2. When Putin assumed the presidency in 1998, he immediately began preparations for military operations in the breakaway region. The Russians went into the Second Chechen War with a new strategy and tactics. They abandoned the old Soviet conventional tactics and fought a counterinsurgency fight that involved pro-Russian Chechen fighters. Putin also characterized this conflict as an "anti-terrorism operation" that portrayed Russia as the victim, not the aggressor. Using this new approach, the Russians managed to subdue the Chechen insurgents and install a pro-Russian government that greatly reduced the effectiveness and popularity of the insurgency.

Building on success in the Second Chechen War, the Russians fine-tuned their tactics into the present Hybrid Warfare concept. The next target of opportunity for Russia was Georgia. Russia had never fully accepted Georgia as an independent country, and supported separatist movements in Abkhazia and South Ossetia.

Military Forces[4]

South Ossetia

The South Ossetian military has a total of 16,000 soldiers. Of those, 2,500 soldiers are on active duty and 13,500 are reservists.

At the beginning of the 2008 South Ossetia war, the armed forces possessed the following equipment:

- Fifteen tanks: 5 T-55s and 10 T-72s
- Twenty-four self-propelled howitzers: twelve 122-mm 2S1 "Gvozdikas" and twelve 152-mm 2S3 "Akatsiya"s
- Twelve 122-mm D-30 howitzers
- Six 122-mm BM-21 "Grad" multiple rocket launchers
- Four 100-mm MT-12 "Rapira" anti-tank guns
- 30 mortars
- 52 armored combat vehicles BRDM, BMP-1 and BTR-70
- Six 9K31 "Strela-1" mobile, short-range, low altitude surface-to-air missile systems
- Ten ZU-23-2 short-range air defense cannons
- Four Mi-8 helicopters

Russian Forces Deployed in South Ossetia at the time of the conflict:

- 496 Russian peacekeeping forces
- Russian 58th Army
- Two battalions of the 135th Separate Motorized Rifle Regiment
- 503rd Motorized Rifle Regiment of the 19th Motorized Rifle Division
- 693rd Motorized Rifle Regiment of the 19th Motorized Rifle Division
- 42nd Motorized Rifle Division
- 70th Motorized Rifle Regiment
- 71st Motorized Rifle Regiment
- Unidentified Chechen units
- One company of Special Battalion Vostok
- One company of Special Battalion Zapad
- Airborne Troops (VDV)
- 104th and 234th Paratroop Regiments of the 76th Guards Air Assault Division (Pskov)
- Units of 98th Guards Airborne Division
- Units of GRU
- One Battalion of the Spetsnaz of 45th Detached Reconnaissance Regiment of VDV (Moscow)
- Units of the 10th Special Forces Brigade
- Units of the 22nd Special Forces Brigade

Abkhazia

- The Abkhazian Self Defense Force consists of approximately 10,000 troops
- 60 tanks, including 40 T-72s
- 85 artillery pieces and mortars, including several dozen with a 122–152-mm caliber

- 116 armored vehicles
- RPG-7 rocket launchers to Konkurs-M anti-tank guided missiles (ATGMs)

Russian Forces Deployed in Abkhazia at the time of the conflict:

- 7th Novorossiysk Air Assault Division
- 76th Pskov Air Assault Divisions
- Elements of the 20th Motorized Rifle Division
- Two battalions of Black Sea Fleet Marines

History of Conflict

Abkhazia and South Ossetia conducted a brief war with Georgia from January 1991 to June 1992. The result was de facto independence for both regions. The Georgians grudgingly allowed both regions to have autonomy with a peacekeeping force that consisted of local forces and Russian troops. The Russians then began to infiltrate operatives into both areas, conducted reconnaissance, established intelligence and insurgent networks, and began to provide financial and humanitarian aid. Russian "peacekeepers" also funneled weapons to separatist groups and provided military training to future insurgents. Finally, Russia issued Russian passports on massive scale to the citizens of South Ossetia and Abkhazia in 2002, essentially making them citizens of Russia. Russia controlled virtually all of the civic, military, and governmental functions in these areas by the time of the Georgian Rose Revolution in 2004.

New Georgian President Mikhail Saakashvili attempted to lure both regions back into a unified Georgian state, but this proposal was rejected. Saakashvili's desire for Georgian membership in NATO was the final straw for Russia. From 2004 to 2008, the Russians stepped up their efforts in INFOWAR. A key element of this tactic is to control information through television, radio, and the Internet. The Russians had been providing access to Russian TV stations since the 1990s, and pro-Russian/separatist media outlets in Abkhazia and South Ossetia provided a steady stream of anti-Georgian propaganda. The Internet was also used to spread pro-Russian and pro-independence themes. Finally, Russian and local intelligence operatives began organizing demonstrations and protests against the Georgian government's mistreatment of the Abkhazian and South Ossetian Russian populations, most of whom held Russian passports and supported autonomy.

The Russians had recognized the governments of both regions in April of 2008 and sent approximately 2,000 more peacekeepers to Abkhazia and massed 1,500 troops on the Russian-South Ossetian border. In late April, a Georgian unmanned aerial vehicle (UAV) was shot down over Abkhazia. The Russians and Abkhazians blamed NATO for the incident while Georgia claimed that insurgents or the Russians had shot down the UAV. Regardless who shot down the UAV, this gave the Russians a plausible excuse to continue to mass troops on the borders of Abkhazia and South Ossetia while covertly moving SPF troops into position.

INFOWAR

As all of this covert activity was taking place, the Russian INFOWAR campaign was in full swing. The Russians began an effort on social media sites, the Russian press, and international press to discredit the position of the Georgian government and show the "plight" of the "oppressed" ethnic Russians. Russian EW experts also began to monitor and jam Georgian military and government communications.

A number of incidents in May and early June of 2008 involving Georgian government officials and troops and pro-Russian Abkhazian and South Ossetian citizens ratcheted up the tension on both sides. Pro-Russian websites, blogs, and news outlets broadcast stories that pushed the Russian/South Ossetian/Abkhazian side of the dispute. Part of the cyber campaign was to portray President Saakashvili as a Nazi, and the Georgian government as oppressive and using Gestapo-like tactics.[5] The Georgian response to this propaganda was virtually non-existent except for a few ineffective press releases by the Georgian government.

Russia also attacked the Georgian computer system, disabling civilian and government sites with barrages of traffic that resulted in denial of service (DOS) situations during and prior to the conflict. It is also suspected that the Russians attacked Georgian systems one month prior to the attack, and then used this information to implement measures to work around Georgian countermeasures. Aside from the normal inconvenience of having computer systems down, the Georgian army and government were unable to effectively communicate during the war.[6]

Separatist elements began to increase activity throughout June and July. Incidents included an assassination attempt on a Georgian official and the capture of four Georgian soldiers by separatists in South Ossetia. An IED was used against Georgian police, and insurgents shelled Tskhinvali in early August, gradually increasing pressure on the Georgian government to act. Finally, on 8 August 2008, the Georgian army moved on Tskhinvali in an attempt to take the Roki Tunnel to deny Russian forces the ability to move into Tskhinvali. The Georgians did manage to secure the southern and central parts of the city by 1400, but this move proved to be too late as the Russians had already started moving regular army troops through the tunnel into South Ossetia.[7] Along with troops, the Russians deployed a large contingent of "reporters" who could cover the war in real time to advance the Russian message of "assisting the oppressed ethnic Russians in South Ossetia and Abkhazia."

Seizure of Tskhinvali

Russian troops arrived at the outskirts of Tskhinvali at approximately 1800 on 8 August 2008. The main Russian ground forces belonged to the 58th Army and were reinforced by the 76th Guards Assault Division. These forces began firing on the Georgian forces in the city and the surrounding areas. The Russians had air superiority and used fixed and rotary wing assets to decimate Georgian forces that were attempting to flank the Gupta Bridge between the Roki Tunnel and Tskhinvali. The Georgian Air Force managed to lightly damage the bridge, but Russian engineers quickly repaired the damage. As darkness fell, the Georgians had retreated to the southern part of the city. The Russians had linked up with the local militia and now had control of municipal buildings and were guided through the city and surrounding areas by their South Ossetian counterparts.

As the battle was raging in Tskhinvali, the Russians continued to pour troops through the Roki Tunnel and into Tskhinvali. Estimates of 5,000–10,000 troops with assigned vehicles, tanks, and infantry fighting vehicles (IFVs), moved southward and simply overwhelmed the outnumbered Georgians. The two sides fought in Tskhinvali throughout the day of 9 August and by 10 August the Russians were able to push the Georgians out of the city and begin a pursuit to the south toward the South Ossetian border. According to Moscow Defense Brief,

> On this very day the accumulation of Russian forces in the region finally bore fruit, and the fighting in South Ossetia reached a turning point.

> Toward the evening of August 10, Tskhinvali was completely cleared of Georgian forces, which retreated to the south of the city. Georgian forces were also repelled from the key Prisi heights. The bulk of Georgia's artillery was defeated. Meanwhile, Ossetian forces, with the support of Russian divisions, took Tamarasheni, Kekhvi, Kurta, and Achabeti on the approach to Tskhinvali from the north. Georgian forces in several of Georgian enclaves were eliminated.[8]

It took the Russians and South Ossetian separatists approximately three days to secure Tskhinvali. By 11 August there were no Georgian forces left in South Ossetia. Georgian troops regrouped at Gori, sixteen miles south of Tskhinvali, setting up defensive positions for the anticipated Russian onslaught.

Battle for Gori

Gori is a major military installation and transportation hub in Georgia.[9] Seventy-five tanks and armored personnel carriers (a third of the Georgian military's arsenal) were assembled near Gori on 7 August.[10] The Russians bombed the Georgian Military Barracks in Gori on 9 August, which destroyed the barracks, damaged several apartment buildings, and killed sixty civilians, according to Georgia. After this airstrike, Georgian forces, mostly conscripts, began to flee the city and were followed by a mass exodus of civilians. The Russians capitalized on this by portraying the Georgians as being incapable of defending their own territory and civilians. The Russians allowed South Ossetian militias, Chechens, and Cossack volunteers to participate in the fight. These forces were accused of rampaging through the occupied territories and looting, indiscriminately kidnapping and killing civilians, and destroying infrastructure. The Georgian army regrouped north of Tbilisi and prepared to defend the capital.

In the Abkhazian section of Georgia, the Russian navy defeated the outgunned and outmanned Georgian navy and blockaded the Port of Poti on 10 August. Russian paratroopers deployed in Abkhazia occupied the city of Zugdidi on 11 August and carried out raids against military bases in western Georgia.[11] Abkhazian militias and insurgents then attacked Georgian forces in the Kodori Gorge on 12 August, forcing the Georgians to withdraw.

Analysis

By this time the war was obviously turning into a rout by the South Ossetian/Abkhazian/Russian forces. International mediation led by France negotiated a ceasefire and eventual peace treaty signed on 16 August that gave South Ossetia and Abkhazia autonomy. Most Russian troops were out of Georgia by mid-September and international peacekeepers were placed on the borders of South Ossetia and Abkhazia and Georgia.

The war was a definite military win for Russia and its proxies. The INFOWAR component was not as successful, as world opinion blamed Russia for instigating the conflict. Russian attempts to portray Georgia as the aggressor were dismissed. Russia would take lessons learned from this conflict and refine its INFOWAR program for its next conflict.

Tactical Vignettes: Russian and South Ossetian Tactics

The following tactical vignettes explore four tactical actions in detail, accompanied by tactical diagrams to graphically depict the actions. Russia and South Ossetia are represented in red. The primary adversary or enemy is presented in the color blue. The color purple and special threat symbol notes a separatist entity. See page 51 for full legend of symbols.

1. Simple Battle Position Defense in an Urban Environment

Russian and South Ossetian military forces in Tskhinvali effectively countered assaults of Georgian military forces in the restrictive mobility corridors of the city. Prior to hostilities, Russian and South Ossetian members of the peacekeeping contingent in Tskhinvali had advantages of time and resources to plan for contingencies of a Georgian attack. Detailed knowledge of the urban infrastructure and the ability to cache weapons such as anti-tank grenade launchers (ATGLs) allowed for immediate urban defense in simple battle positions (SBPs) as Georgian forces attacked into the city.

The Russians and South Ossetians knew they must slow Georgian advances into the city and surrounding countryside until Russian ground maneuver forces arrived from the very restrictive exit of the Roki tunnel and mechanized routes to the south. Retaining forward defensive terrain was a military requirement based on political ramifications. Russian forces and South Ossetians quickly activated planned and expedient defensive positions throughout the city as part of an urban area defense. Observation reports by local citizens, militia, and regular forces provided early warning of Georgian avenues of approach. The minimal distance from the border to the city outskirts precluded any disruption zone in depth. Security elements harassed lead Georgian elements and attempted to separate Georgian infantry and armored elements once they entered the city street network.

Kill zones focused the combat power of regular and militia elements with frontal or flanking anti-tank fires from SBPs.[12] Positions were reinforced with opportune obstacle emplacement of available materiel and augmented by rubble caused by ongoing combat actions and indirect fires. Use of complex urban terrain; camouflage, cover, concealment, and deception (C3D); pre-staged caches of weapons and munitions; and kill zones oriented on likely Georgian avenues of approach to prevent Georgian seizure of Tskhinvali. In one instance, a series of engagements by Russian and South Ossetian ambush teams and main defense elements destroyed four tanks with ATGL fires and other coordinated defensive measures.[13]

Training Implications

These type of defensive tactics are evident in the US Army's Training Circular (TC) 7-100 series for training against threats in complex operational environments (OEs).[14] In Tskhinvali, disruption elements were able to delay and disrupt the momentum of Georgian assaults with ambush teams and defenses. With handover of engagements to main defense elements intent on retaining terrain as long as possible, Russian and South Ossetian elements were flexible enough to use alternate, supplementary, and subsequent SBPs to stall Georgian advances. Although immediate defensive reserves were probably minimal, arriving Russian mechanized forces were able to build combat power effects and force Georgian elements out of the city and into a withdrawal under pressure.

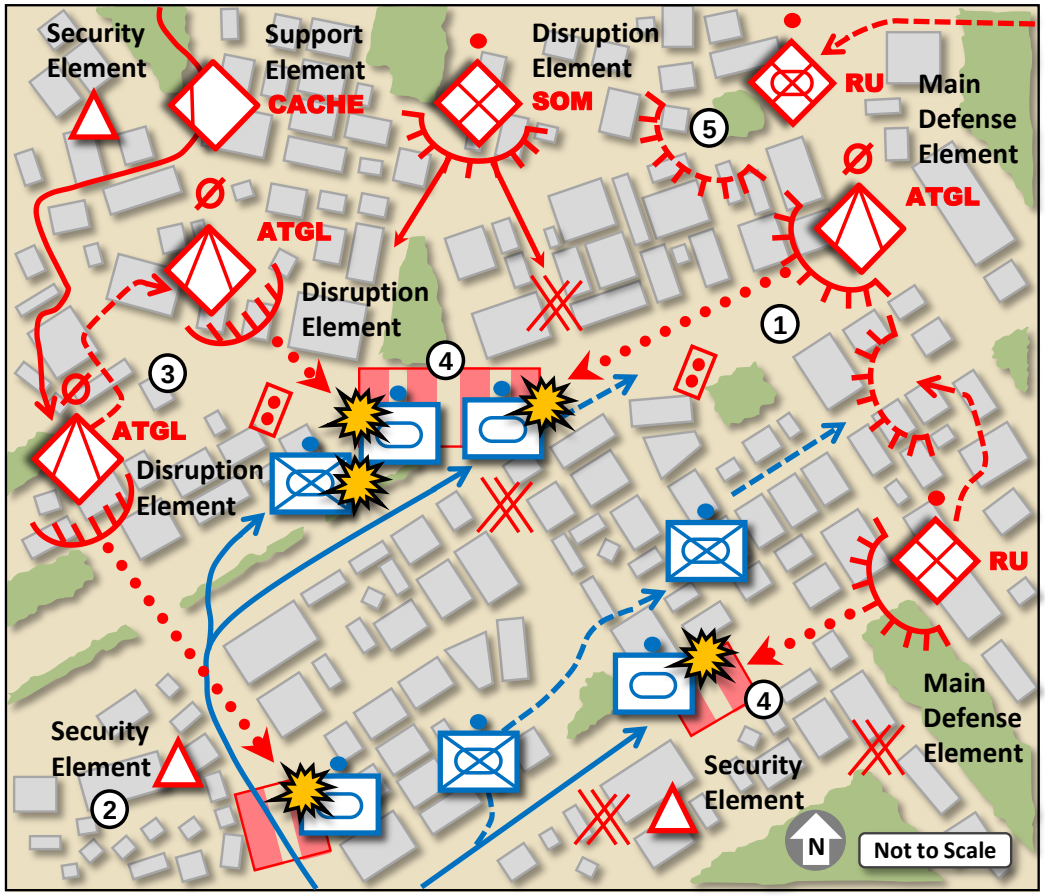

Security Element
Support Element
CACHE
Disruption Element
SOM
RU
Main Defense Element
ATGL
ATGL
Disruption Element
ATGL
Disruption Element
RU
Main Defense Element
Security Element
Security Element
N
Not to Scale
1 RU and SOM elements position SBPs and obstacles on Georgian axes of advance.
2 Local observers report Georgian armor and infantry directions of attack.
3 RU and SOM position anti-tank ATGL elements to ambush tanks and infantry.
4 Obstacles channel Georgian elements into kill zones for main defense fires.
5 RU and SOM elements block Georgian advances and prepare to integrate RU mechanized elements arriving from north of the city.

Figure 2. Russian and South Ossetian anti-tank urban defense with ATGLs (example)

Several functional characteristics apply to this example of simple battle positions in an urban environment. The defensive actions can be analyzed as areas of disruption zone, battle zone, and support zone. Security use of reconnaissance and counter-reconnaissance provided early warning and a level of protection to the main defenses. Ambushes and other disruptive actions reduced cohesive combat power of an enemy. C3D measures protected defending elements and lured attacking elements into kill zones. Given restrictions on allowable weapon systems in a region controlled by a multinational peacekeeping force, covert materiel caches can provide immediate access for use in a short-notice

transition to combat operations. Military and paramilitary elements in simple battle positions of a coordinated area defense can create conditions that deny an enemy success in territorial objectives, and/or provide time for friendly force reinforcements to arrive, seize the tactical initiative, and transition to the offense.

2. Direct Air Support as a Raid

Russian and South Ossetian military elements conducted defensive actions to slow Georgian advances along the mobility corridor to the west of Tskhinvali as Georgian forces attacked along multiple axes of advance from the south. Civilian supporters or South Ossetian militia probably reported a concentration of Georgian main battle tanks and infantry arriving in the vicinity of a wooded area on the western outskirts of the city. Security elements confirmed Georgian orientation to north and northwest.

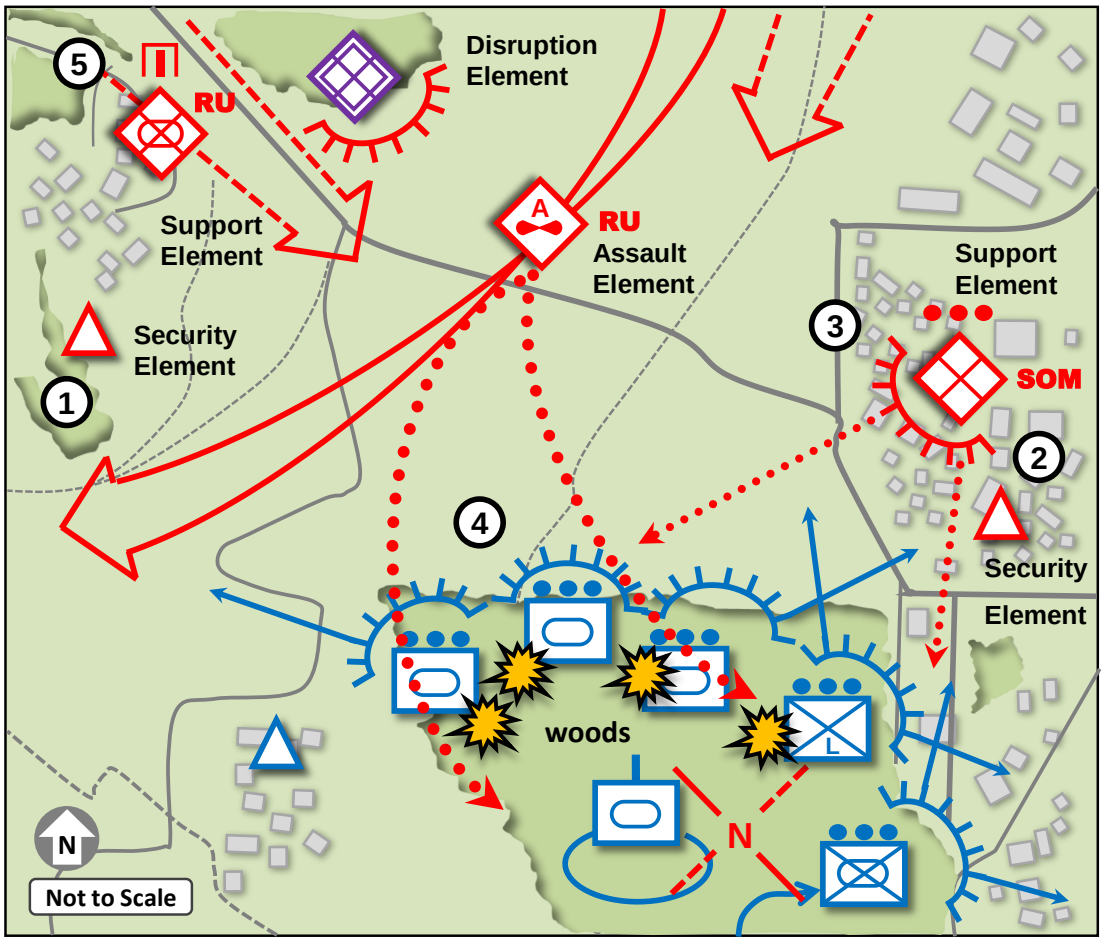
Russian and South Ossetian elements lacked the combat power to confront these Georgian elements as Russian mechanized forces were still deploying south from the chokepoint of the Roki tunnel exit. Russian elements coordinated for direct air support (DAS) to attack the Georgian defensive positions as one of many offensive actions in the sector. In this engagement, Russian fixed-wing aircraft attacked with cluster bomb munitions. The raid caught many of the Georgian soldiers in the open causing significant casualties as well as damaging or destroying several armored vehicles. Elements from Russian motorized rifle regiments (MRRs) started to arrive and by mid-afternoon on 8 August. Georgian elements withdrew from their defensive positions to reorganize to the south as part of a general withdrawal of Georgian forces.[15] Other Russian air assets degraded Georgian capabilities in the Georgian support zone that limited combat support and logistics flow to forward Georgian combat elements, and disrupted Georgian C2. Later and into the evening, Georgian elements with main battle tanks, armored vehicles, and infantry attacked north in this western corridor but were unsuccessful. By late in the day, elements from MRRs and other Russian units of divisional combat support (CS) and combat service support (CSS) were in or near the city of Tskhinvali.

Training Implications

These type of offensive tactics are evident in the US Army's Training Circular (TC) 7-100 series for training against superior threats and/or when unable to initially mass combat power in a particular tactical locale.[16] Ground maneuver disruption elements lacked the ability to stop the ongoing defensive occupation by Georgian elements in the woods and reported this lucrative target. The Russians used a window of opportunity to mass combined arms effects with DAS in order to degrade Georgian will and capability to defend their tactical positions.[17] Disrupting Georgian defensive positions in this corridor was critical as Russian and South Ossetian elements prepared to transition from defend and delay to offensive actions in support of a divisional integrated attack across the entire battle zone.

Several functional characteristics apply to this example of raiding actions. The DAS action element displayed a rapid massing of combat power that degraded and disrupted Georgian capabilities at a critical moment, and caused casualties and weapon systems degradation that adversely affected Georgian C2 and morale.[18] Support elements in Tskhinvali provided limited direct fires to augment the disruption and coordination for forward air control of the DAS raid.[19] Security elements maintained

contact with Georgian elements as they withdrew and were able to orient Russian mechanized elements as they attacked south into the battle zone.



1. SOM security elements report vehicles and defensive positions in wooded area.
2. RU, SOM, and separatists conduct delay to slow Georgian maneuver north.
3. RU element with SOM coordinate for DAS on armored vehicles concentration.
4. DAS cluster bomb munitions neutralize target and prompt Georgian withdrawal.
5. RU motorized rifle units start arriving in battle zone.

Figure 3. Russian direct air support raid on Georgian defensive positions (example)

Defensive actions in response to an attack may initially require retention of key terrain. Attack aviation can employ direct air support (DAS) to disrupt and destroy enemy forces in proximity to friendly forces, and assist ground maneuver elements to regain the tactical initiative.[20]

3. Area Defense as War Erupts in South Ossetia

Georgian and South Ossetian incidents escalated in the early months of 2008 to include cross-border violations of small arms fire, sniping, improvised explosive device and/or other direct and indirect fires. Russian and South Ossetia peacekeeping forces gradually increased military capabilities, and Georgian forces positioned at the Georgia-South Ossetia border. Russia knew if war erupted, time and distance factors would preclude immediate massing reinforcements in the region to protect Tskhinvali. Actions indicated war was imminent.

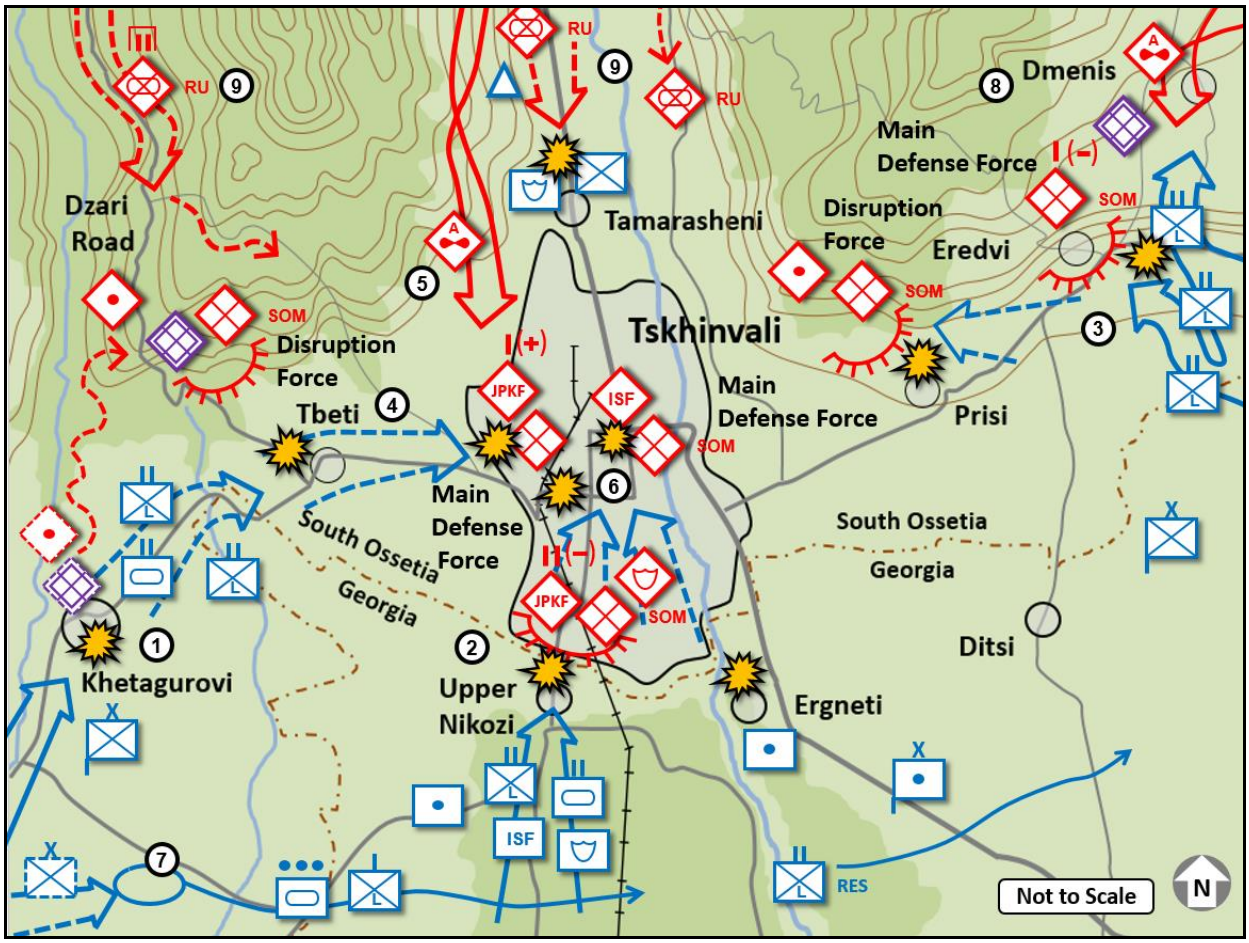


Figure 4. Russian and South Ossetian area defense in and near Tskhinvali (example)

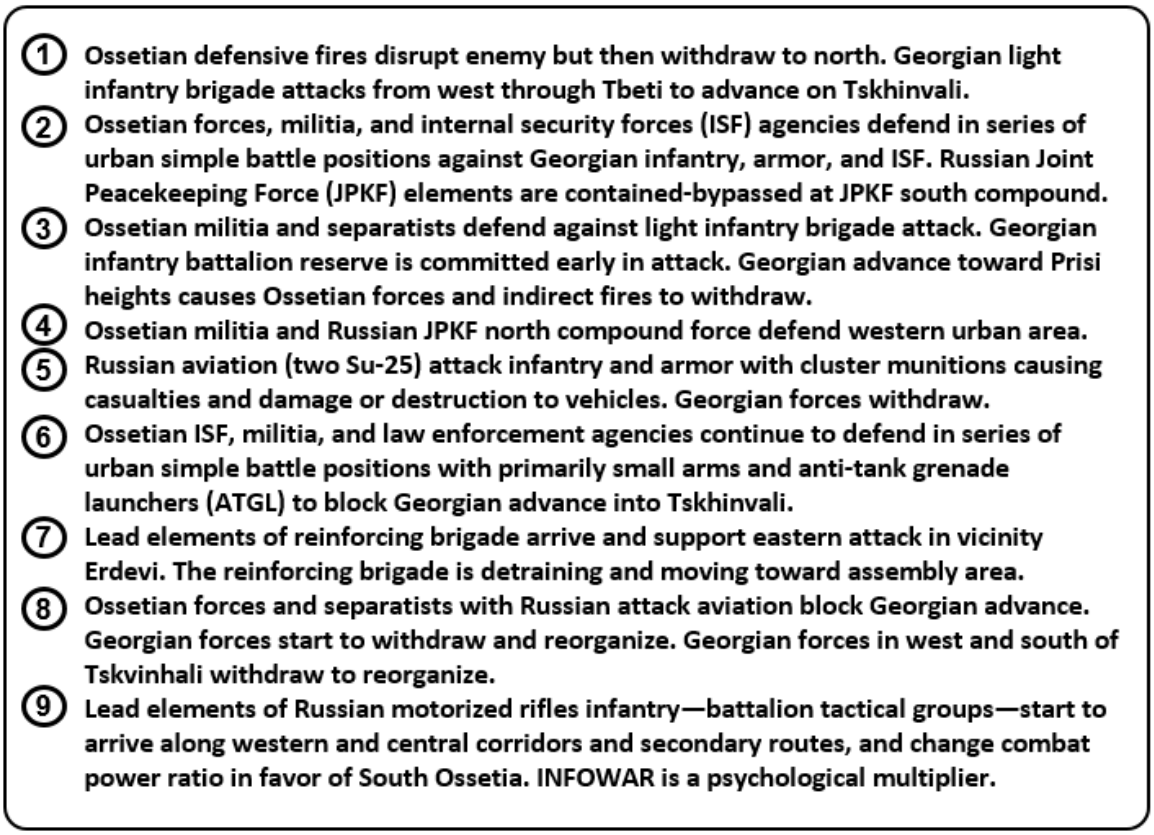

1 Ossetian defensive fires disrupt enemy but then withdraw to north. Georgian light infantry brigade attacks from west through Tbeti to advance on Tskhinvali.
2 Ossetian forces, militia, and internal security forces (ISF) agencies defend in series of urban simple battle positions against Georgian infantry, armor, and ISF. Russian Joint Peacekeeping Force (JPKF) elements are contained-bypassed at JPKF south compound.
3 Ossetian militia and separatists defend against light infantry brigade attack. Georgian infantry battalion reserve is committed early in attack. Georgian advance toward Prisi heights causes Ossetian forces and indirect fires to withdraw.
4 Ossetian militia and Russian JPKF north compound force defend western urban area.
5 Russian aviation (two Su-25) attack infantry and armor with cluster munitions causing casualties and damage or destruction to vehicles. Georgian forces withdraw.
6 Ossetian ISF, militia, and law enforcement agencies continue to defend in series of urban simple battle positions with primarily small arms and anti-tank grenade launchers (ATGL) to block Georgian advance into Tskhinvali.
7 Lead elements of reinforcing brigade arrive and support eastern attack in vicinity Erdevi. The reinforcing brigade is detraining and moving toward assembly area.
8 Ossetian forces and separatists with Russian attack aviation block Georgian advance. Georgian forces start to withdraw and reorganize. Georgian forces in west and south of Tskvinhali withdraw to reorganize.
9 Lead elements of Russian motorized rifles infantry—battalion tactical groups—start to arrive along western and central corridors and secondary routes, and change combat power ratio in favor of South Ossetia. INFOWAR is a psychological multiplier.

Figure 5. Narrative summary of initial combat actions in vicinity of Tskhinvali

Georgia initiated indirect fires on Tskhinvali, Gufta bridge, and near the Roki tunnel to fix ground maneuver forces in or near the capital and disrupt Russian axes of advance.[21] As Georgian maneuver forces attacked into South Ossetia, Russian peacekeeping forces, South Ossetian forces and militia, and regional separatists attempted to block or fix Georgian forces with defensive fires, ambushes, and limited assaults in urban and rural terrain.[22] These defensive actions created conditions that allowed Russian reinforcements to arrive in the area, mass, and transition from Russian and South Ossetian area defense engagements to an integrated offensive operation throughout the battle zone.[23]

Training Implications

These types of tactics are evident in the US Army's Training Circular (TC) 7-100 series for training against threats when overmatched and when unable to mass or provide integrated command and control to initial phases of an operation. The intent is to force the enemy's offensive operations to culminate before the enemy can achieve objectives, and preserve friendly force combat power and retain regaining the initiative within its capabilities.[24] An area defense inflicts losses on the enemy, retains ground, and protects friendly forces. The area defense does not surrender the initiative to attacking forces, and takes action to create windows of opportunity that permit friendly forces to attack key components of the enemy's combat system and/or cause unacceptable enemy casualties. INFOWAR is

important for effective perception management to deceive, demoralize, and defeat the enemy during concurrent maneuver and fires.

In Tskhinvali and the surrounding countryside, disruption and main defense forces conducted multiple offensive or defensive actions against multiple Georgian axes of advance into South Ossetia. Direct and indirect fires and maneuver by Ossetian disruption forces caused Georgian forces to deploy into combat formations and delayed their movements or maneuver into South Ossetia. Main defense forces defended from complex battle positions or simple battle positions that delayed Georgian maneuver into Tskhinvali. Any Ossetian reserves were small local elements. These actions provided time for Russian ground maneuver forces to mass combat power, employ direct air support (DAS), and eventually counterattack through South Ossetia and into Georgia.

Several functional characteristics apply to this example of regular forces, militia, and irregular forces to fix and/or disrupt enemy ground maneuver formations, interrupt the enemy timetable, and prevent success of enemy objectives. Early in the five-day war, ground and aerial actions in a narrow disruption zone and expanding battle zone reduced cohesive combat power of an enemy. Key terrain included the South Ossetian capital of Tskhinvali and the physical terrain to both flanks for observation and fires.[25] As Russian reinforcements arrived, main defense forces and disruption forces were integrated into fixing and assault forces to defeat or destroy enemy forces in zone. Support forces added to the Russian-South Ossetian increase in combat power of ground maneuver and aviation forces, indirect fires, and other CS and CSS.

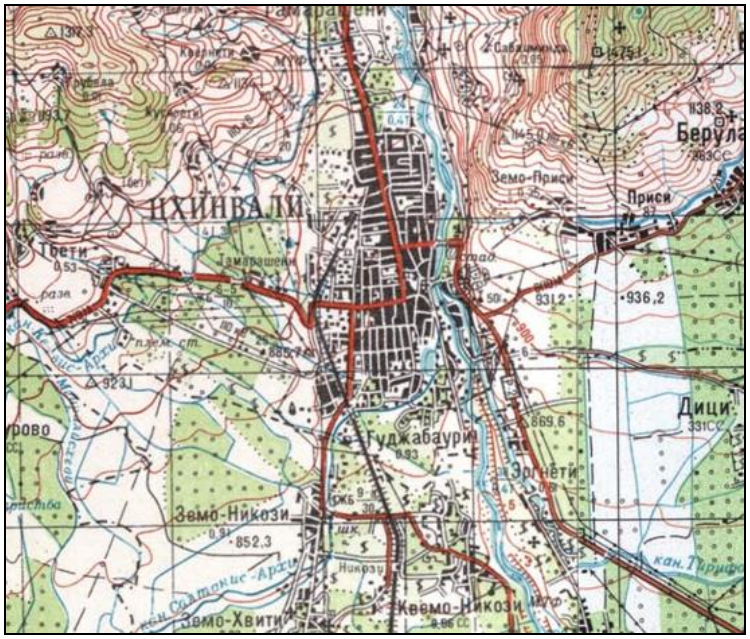


Figure 6. Topography map of Tskhinvali area

Specifically planned and integrated INFOWAR seeks to influence an enemy's decisionmaking, and create pause or acceptance by international actors in a conflict. Continuous INFOWAR messaging psychologically postures to protect interests and gain critical advantages in time and space over an adversary or enemy.[26]

***Note*.** Military symbols for Ossetian, Russian, and Georgian forces do not have echelon amplifiers unless stated in source materials. The Russian JPKF in Tskhinvali was formed from a motorized rifle battalion located in a northern and southern compound. The battalion (-) and company (+) amplifiers are general estimates of JPKF distribution.

4. Integrated Attack toward Tbilisi

Russian forces, South Ossetian forces and militia, and regional separatists prevented Georgian forces from seizing the South Ossetian capital of Tskhinvali on 8–9 August 2008.[27] Russia continued to introduce ground and aerial forces into the battle zone to protect Tskhinvali, and established military capabilities on the ground and in the air superior to Georgia that allowed expanding Russian offensive actions.[28] Russian reinforcements massed to transition an initial defensive posture in South Ossetia to an integrated attack along the South Ossetia-Georgia border and deep into the Georgian support zone.[29]

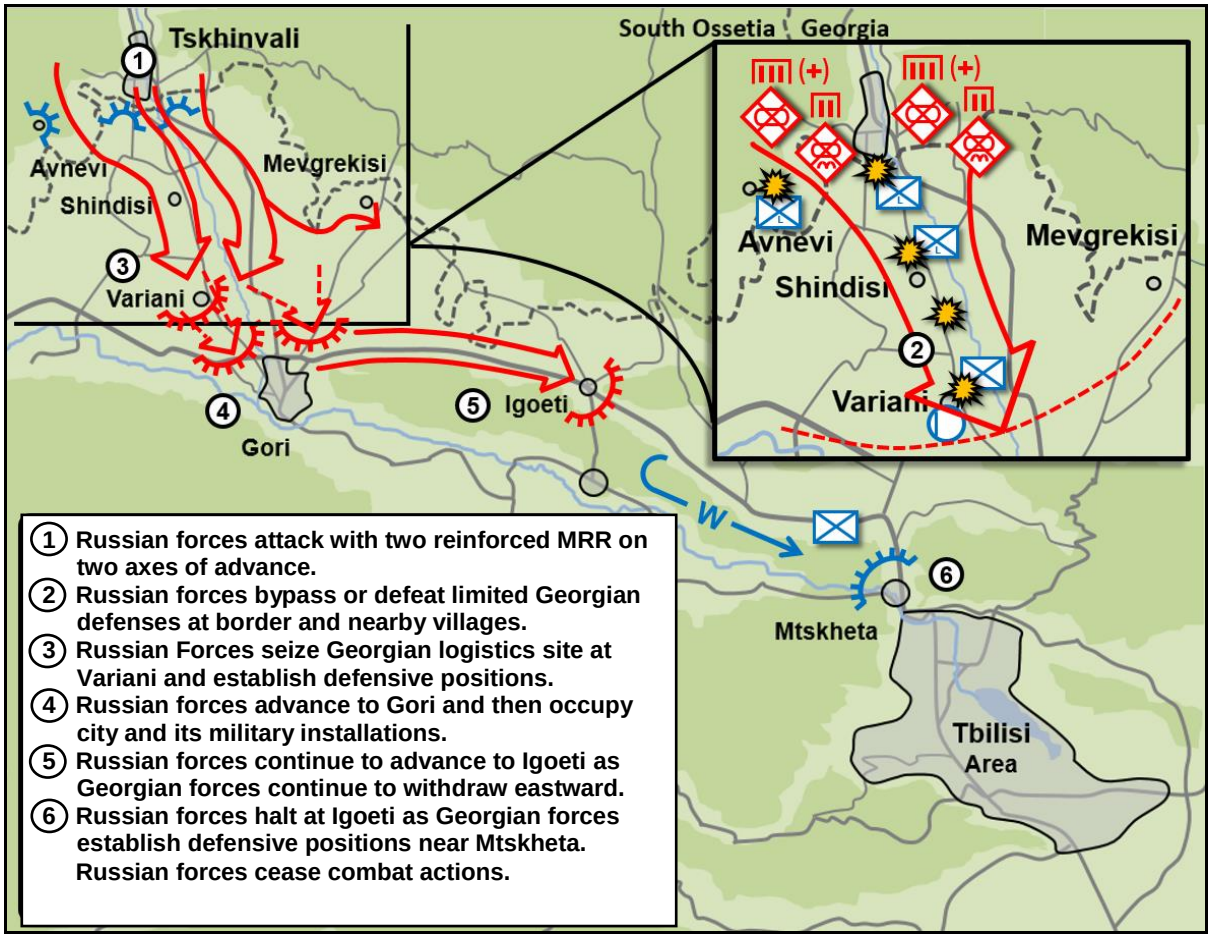

Tskhinvali
South Ossetia
Georgia
Avnevi
Shindisi
Mevgrekisi
Variani
Gori
Igoeti
Mtskheta
Tbilisi
Area
1 Russian forces attack with two reinforced MRR on two axes of advance.
2 Russian forces bypass or defeat limited Georgian defenses at border and nearby villages.
3 Russian Forces seize Georgian logistics site at Variani and establish defensive positions.
4 Russian forces advance to Gori and then occupy city and its military installations.
5 Russian forces continue to advance to Igoeti as Georgian forces continue to withdraw eastward.
6 Russian forces halt at Igoeti as Georgian forces establish defensive positions near Mtskheta. Russian forces cease combat actions.

Figure 7. Integrated attack along Tskhinvali–Tbilisi axis of advance (example)

In this same time period, Georgian offensive actions in the vicinity of Tskhinvali stalled. A Georgian call for temporary ceasefire was hampered by continued indirect fires from both Georgian and Russian forces and isolated incidents in the battle zone. After renewed Georgian attacks on Tskhinvali were unsuccessful, Georgian forces withdrew to the south and southeast by 10–11 August 2008.[30] Russian special purpose forces (SPF) were aerial-inserted near Gori for reconnaissance and surveillance of area activities at military installations and related intelligence for the Russian attack.

Russian attack aviation was a combat multiplier in the war, whereas Georgian authorities decided to not use their small fixed-wing and rotary-wing forces, with limited mission exceptions, to preserve this capability.[31] Nonetheless, inefficient C2 between Russian air and ground maneuver forces limited the timing and effects of close air support [direct air support (DAS)] to ground maneuver units.[32] More than one Russian aircraft loss was due to Russian friendly fires.[33] Some targets attacked in the Georgian support zone by Russian aviation appeared less than critical to disrupting Georgian offensive and defensive actions.[34]

Russian forces occupied Tskhinvali and prepared to continue the attack to the south toward Gori on two primary axes of advance with two reinforced regimental tactical groups [brigade tactical groups (BTGs)].[35] West of the Liakhva River, one divisional motorized rifle regiment (MRR) was reinforced with a battalion tactical group [battalion detachment (BDET)] from a different division and an MRR (-) from a different division.[36] East of the Liakhva River, one MRR was reinforced with a battalion tactical group (BDET) from a different division. The two BDETs from an airborne assault division were configured with BMD armored vehicles, 2S9 self-propelled gun-mortars, and other combat support systems.[37]

As Russian forces attacked south from Tskhinvali on 11 August 2008, Georgian defenses in the border villages and nearby villages were seized or bypassed in order to achieve assigned objectives to the south. Bypassed Georgian forces were defeated or destroyed by Russian forces. As Georgian forces withdrew toward Gori, unexpected engagements occurred with Russian forces that had already bypassed Georgian defensive positions near the border.[38]

Russian forces reached an initial objective south of Tskhinvali to establish a zone that precluded Georgian indirect fires into South Ossetia. Russian forces continued their attack and seized a large logistics site at Variana and established defensive positions. With the exception of one Georgian rotary-wing attack on a Russian convoy, Georgian forces continued to withdraw toward defensive positions near Gori and northeast of Tbilisi near Mtskheta.

On 12 August 2008, Russian forces occupied terrain in the vicinity of Gori that emplaced indirect fire systems to cover and control the main east–west highway and rail line, as well as Gori. No significant resistance occurred between Russian and Georgian forces from Tskhinvali and Gori, and Russian forces prepared to seize Gori. Russian forces occupied Gori, and controlled the main highway between Gori and Tbilisi to the town of Igoeti.[39] Russian forces achieved their objectives and did not continue their advance toward Tbilisi. A large neutral zone existed between the Russian and Georgian forces as Russia declared a cessation of direct combat actions in the Russian-Georgian war.

Training Implications

These types of tactics are evident in the US Army's Training Circular (TC) 7-100 series for training against threats who conduct an *integrated attack.* This offensive action seeks military decision by destroying the enemy's will and/or ability to continue fighting through the application of combined arms effects. Integrated attack is often employed when the threat enjoys overmatch of its enemies and is able to employ the advantages of offensive combat power.[40]

Integrated attack includes but is not limited to—

- Disrupting enemy C2 and logistics to complement destruction of other enemy combat power.

- Isolating the targeted subcomponents of the enemy's combat system from his main combat power.
- Applying deception and other components of information warfare (INFOWAR) to degrade enemy situational understanding, morale, and resolve to continue resistance.
- Using flank attacks and envelopment throughout the depth of operations to include an enemy disruption zone, battle zone, and support zone.

In South Ossetia and along the main high-speed highways leading toward Tbilisi, Russian fixing and assault forces conducted offensive actions to defeat Georgian forces at the tactical level, and then threatened Georgian resources such as major petroleum pipelines, main motorways, rail lines, and the approaches to the capital of Tbilisi.

An integrated attack employs *action* and *enabling* forces that are identified by function. An integrated attack often employs fixing, assault, and support forces as enabling forces. The action force conducts the primary action of the friendly force mission.[41] Continuous INFOWAR is important for effective perception management to deceive, demoralize, and defeat the enemy during concurrent maneuver and fires. The exploitation force is the most common type of action force in an integrated attack after a successful assault or attack. Action and enabling forces can be described as follows:

- The *fixing* force prevents enemy defending forces, reserves, and/or other quick-response forces from interfering with the actions of the assault and exploitation forces.
- The *assault* force defeats or destroys a designated enemy force or seizes key positions, and may be used to create a window of opportunity for an exploitation force.
- The *support* force provides general and/or designated support to the attack, other combat or combat service support, or C2 functions.
- The *exploitation force* must be capable of penetrating or avoiding enemy defensive forces in order to attack and disrupt, defeat, or destroy the enemy's support infrastructure before the enemy has time to react.

Several functional characteristics apply to this example of regular forces and special purpose forces, and coordination of ground and air maneuver forces to fix and defeat or destroy enemy forces, sustain the initiative, and promote a successful Russian INFOWAR campaign to the media and public. Large-scale military exercises in Russia near South Ossetia allowed Russian forces to preposition combat power near the intended area of operations. Based on channelized routes into the Tskhinvali area, massing Russian ground combat power took time in the initial days of the war. Once massed, Russian mechanized forces were task-organized for their attack, and maneuvered quickly through the battle zone and into the Georgian support zone along one major axis of advance toward the Georgian capital. Limited or no Georgian resistance was the norm after Georgian forces withdrew from Tskhinvali. Integrated Russian INFOWAR promoted a narrative that Russian actions were defensive and that the aggressor was Georgia.[42] INFOWAR centered on a message that it was protecting South Ossetia.

Note. Military symbols for Ossetian, Russian, and Georgian forces do not have echelon amplifiers unless stated in source materials. Russian forces were task-organized from several divisions with consideration to training readiness, mission requirements, and type of unit capabilities. The Russian regiment (+) amplifiers and battalion task force amplifier for the tactical groups are general estimates of combat power distribution.

Crimea 2014

In late November of 2013, protests erupted in Ukraine over the Ukrainian governments' rejection of a European Union-sponsored trade agreement by the pro-Russian government of Viktor Yanukovych. Yanukovych had opted for a trade agreement with Russia that was supported by Ukrainians in the east and opposed by western citizens. These protests morphed into the "Euromaidan" movement and resulted in the ouster of Yanukovych and the subsequent Russian incursion and annexation into the Crimean peninsula.

The unrest in Ukraine was not a new phenomenon. Tensions between Ukraine and Russia have been ongoing for hundreds of years. In the last century, several conflicts between the two have exacerbated the tension. The Soviet regime's absorption of Ukraine in 1921 has always been a source of friction. The Russians have always viewed Ukraine and Crimea as regions of Russia and not independent, separate nations. The invasion and occupation of Ukraine by Nazi Germany in World War II and the subsequent pro-independence and pro-Soviet insurgent movements further divided Ukraine along ideological and geographic lines. Under Stalin, ethnic Russians were resettled in eastern Ukraine after World War Two creating a pro-Russian enclave. The transfer of Crimea to the Ukrainian S.S.R. in 1954 complicated matters further and made the ethnic Russians in Crimea feel more isolated from the rest of Ukraine. Finally, Ukrainian independence following the dissolution of the Soviet Union in 1991 was never fully accepted by Russia—they never considered Ukraine to be a real country—and attempted to influence it economically and militarily.

Due to the historical tensions in the region and the Russian desire to dominate and influence its former territory, Russia has waged an INFOWAR campaign to discredit the Ukrainian government as a vassal of NATO and the United States. Russia regarded the 2004 Orange Revolution as a crisis manufactured by American "agents" wishing to dominate and marginalize Russia.

This situation provided the Russians with an opportunity to influence events in Ukraine through covert operations and INFOWAR. Russia has maintained covert operatives in Ukraine since the breakup of the Soviet Union, but it stepped up operations in 2005. They set up intelligence networks in eastern Ukraine and Crimea and began INFOWAR to discredit the Ukrainians. Ethnic Russians were portrayed as oppressed victims of a Ukrainian government that did not see them as equals.

Russia's' INFOWAR effort used Russian television and radio that was available in Crimea to push its message of ethnic Russian solidarity, the right of Crimeans to choose their own government, and the threat posed by the "hostile Western" Ukrainian government in Kiev. As the situation in Kiev worsened, Yanukovych was forced to flee the country and a new government took over. This fed right into the Russian INFOWAR narrative and provided the Russians the needed catalyst to make the move into Crimea.

Depending on which president was in power, the political and economic relationship between Ukraine and Russia has swung like a pendulum since the former's independence in the early 1990s. In May 2002, the Ukrainian political leadership announced that their country would seek to join NATO—a move loathed by the Russians and maybe more than half of the Ukrainian population. This gravitation toward the Western military alliance continued until 25 February 2010, when Viktor Yanukovych began his term as Ukraine's president. In April 2010, Ukraine signed a deal with Moscow that would allow the Black Sea

Fleet to be stationed in Crimea until 2042 with an option providing for renewal of the agreement for five additional years. In return, Russia cut the price of natural gas sold by GazProm to Ukraine by 30%. Two months after ratifying the Black Sea Fleet deal, the Ukrainian parliament voted to stop its country's plans to join NATO—a decision that significantly increased Russia's geopolitical influence over Ukraine. In November 2013, Yanukovych's government chose to reject a trade agreement with the European Union (EU), looking instead for a closer economic relationship with Russia.[43]

Parliament's decision to turn its back on the West led Ukrainian nationalists to begin small protests all over the country, which increased in size until 100,000 Ukrainians marched in Kiev and occupied its city hall. Russia responded to Yanukovych's tenuous situation by writing off $15 billion of Ukrainian debt and approving a one-third price reduction on natural gas shipments to Ukraine. While possibly not connected, the Ukrainian government released all 234 demonstrators taken into custody since December 2013 just a few days after Ukrainian security forces allegedly killed 77 protesters in Kiev. Despite this conciliatory move by the authorities, violent protests continued throughout Kiev until Yanukovych signed an agreement with opposition leaders that committed him to governing consistent with parameters codified in the 2004 constitution. Shortly thereafter, Yanukovych fled to either eastern Ukraine or Russia in fear of his personal safety. On 23 February 2014, the Ukrainian parliament appointed its speaker, Oleksander Turchynov, as interim president, and the new government later issued an arrest warrant for Yanukovych due to his impeachment and flight from prosecution. Russia's loss of its leading supporter in Kiev made it seem to Putin and the other Russian leaders that Ukraine would not remain within the Russian sphere of influence, but even more importantly was how the change in administrations would affect the Russian Black Sea Fleet. On 31 March 2014, GazProm eliminated the "discount" of natural gas sold to Ukraine and increased the price by over 40% to $385.50 per thousand cubic meters (tcm). Less than a week later, on 3 April 2014, GazProm raised the price of natural gas sold to Ukraine to $485 per tcm. Negotiations continued throughout the summer, but the two sides have yet to reach an agreement. Russia eventually chose to stop all natural gas sales to Ukraine until that country paid off its past gas debt of over $2 billion, and further stipulated that all future sales must be prepaid before GazProm ships the natural gas through its pipeline.[44]

2010 Naval Base Agreement

The Yanukovych-led Ukrainian government agreed in April 2010 to allow the Russian Black Sea Fleet to remain based in Crimea for an additional 25 years, with a five-year extension option. With the current deal not set to expire until 2017, this gave Russia the ability to base troops in Crimea until 2042 with an option for five additional years. In return for the extension, Ukraine would receive a $100 discount per tcm of natural gas if the price was over $330 per tcm, or a 30% discount if the regular price was below the $330 threshold. The deal would allow Ukraine to purchase up to 30 billion cubic meters of natural gas in 2010 and up to 40 billion cubic meters annually in the following years. Basically, Ukraine traded the right for Russia to station military troops in Crimea for a promise by Russia to supply Ukraine's energy requirements throughout the length of the agreement.[45]

Russian Crimean Military Authorizations

The deal between Ukraine and Russia allowed Russian naval forces to be stationed in Crimea. The maximum strength limits for the Russian armed forces included 25,000 personnel, 24 artillery systems with calibers less than 100-mm, 132 armored vehicles, and 22 airplanes. Most of the Russian naval units

were stationed in the Sevastopol area, but there were a few exceptions—the primary Russian naval airbase is in Kacha, a few miles north of Sevastopol, and the 61st Support Group in Feodosia in the eastern part of the province. At the time of the 2014 crisis, Russia had only about 16,000 troops stationed in Crimea; of these, most were naval personnel used mainly for sailing ships, rather than soldiers trained for ground warfare. One source stated that 10,000 combat soldiers, possibly infiltrated into Crimea, took part in the capture of the Ukrainian military bases in Crimea, but no other open source confirmed a number that high. Two major exceptions to the mainly naval Russian presence in Ukraine included the 1,096th Separate Anti-Aircraft Missile Regiment and 2,000 marines in the 810th Marine Brigade. At the onset of the 2014 crisis, additional Russian airborne soldiers and specialized troops were flown in to Crimean airports, ferried in, or brought into the country by hovercraft.

Russian naval units assigned to Crimea in late February/early March 2014 before the influx of any additional forces[46]

Unit (Size if known)	Location
Black Sea Fleet Headquarters (Flag Ship-Missile Cruiser Moskva)	Sevastopol (Note: Payment by Russia to lease facilities and for environmental impact)
854 Coastal Missile Regiment	Chersonese (Sevastopol) (Note: Military Personnel)
1096 Air Defense Regiment	Sevastopol (Note: Artillery [less than 100-mm in size])
89 Independent Communications Regiment	Sevastopol (Note: Armored Vehicles)
130 Electronics Intelligence (ELINT) Center (Osnaz)	Sevastopol (Note: Military Planes)
810 Independent Marine Brigade (2,000 personnel)	Sevastopol (Note: Kacha Air Base)
30 Surface Ships Division (Ships-Kerch, Ochakov, Smetlivy, Ladny, & Pytlivy)	Sevastopol (Note: Gvardeysky Air Base)
11 Surface Ships Brigade	Sevastopol (note: Unit Security)
197 LST Brigade (7 amphibious ships)	Sevastopol
247 Independent Submarine Division (Diesel Subs B-871 Alrosa & B-380 Syvatoy Knyaz Georgy)	Sevastopol
68 Coast Guard Ships Brigade (Harbor Defense Ship Brigade)	Sevastopol
400 Anti-Submarine Ships Division (4 ships)	Sevastopol
418 MSM (Minesweeper) Division (4 ships)	Sevastopol
102 Independent Anti-Diver Battalion	Sevastopol
41 Missile Ships Brigade	Sevastopol
166 Missile Ships Division (Fast Attack Craft-Bora & Samum hovercrafts, Mirazh & Shtil)	Sevastopol
295 Missile Boat Division	Sevastopol
63 Repair Ships Brigade	Sevastopol
519 Independent ELINT Ships Division	Sevastopol
Support Ships Department	Sevastopol
VM-1020 (Support Ships)	Sevastopol
58 Group (Support)	Sevastopol
61 Group (Support)	Feodosia
9 Support Ships Brigade	Sevastopol
472 Support Ships Brigade	Sevastopol
57 Support Ships Division	Sevastopol
23 Support Ships Division	Sevastopol
37 Rescue Brigade	Sevastopol
138 Rescue Ships Division	Sevastopol
162 Support Rescue Ships Division	Sevastopol
Hydrographic Department	Sevastopol

Unit (Size if known)	Location
422 Separate Hydrographic Ship Division (includes Cheleken, Stvor, Donuzlav, & GS-402)	Sevastopol
176 Hydrographic Division	Sevastopol
47 Hydrographic District	Sevastopol
7057 Naval Air Force Brigade	Sevastopol

Ukrainian Forces

Ukraine actually fielded more personnel—about 25,000 military personnel to 16,000 Russian sailors and soldiers—in Crimea in late February 2014. Most of the Ukrainian military personnel, however, were sailors and not ground forces. The one major exception was the combined forces of approximately 750 personnel of the Ukrainian 1st (stationed in Feodesia) and the 501st Marine Battalion in the eastern part of Crimea. If Russia infiltrated 10,000 additional ground forces into Crimea, the forces were then almost equal in terms of personnel during the crisis. There were some non-military forces in Crimea that Russia felt more important than the naval personnel. These included Ukrainian Border Troops and Minister of Interior internal defense units. The chart below shows the major Ukrainian military weapon systems as of April 2013, not just the equipment located in Crimea.[47]

Ukrainian Army (As of April 2013)[48]

Armored Equipment in Service		Artillery in Service		Missile/AD/AT/AVN in Service	
T-80UD/T-90 Main Battle Tank	167	152-mm, 2A36 Giatsint-B, Towed Gun	287	100-mm, MT-12, Towed Anti-Tank Gun	500
T-72A Main Battle Tank	600	152-mm, 2A65 MSTA-B Towed Gun/Howitzer	185	30-mm, 2S6M Tunguska, SP AA Gun (w/SA-19 Grison SAM)	70
T-64B Main Battle Tank	1100	152-mm, D-20 Towed Gun/Howitzer	215	57-mm, S-60, Towed AA Gun	400
T-64BM Bulat	47	152-mm, M-1937 (ML-20), Towed Gun/Howitzer	7	SS-1C Scud SRBM, Surface to Surface Missile	72
T-54/55 Medium Tank	UNK (<112)	203-mm, 2S7 Pion, SP Howitzer	99	9K21 Luna, Free Rocket Over Ground (FROG)-7, Surface to Surface Missile	50
T-84/U/Oplot Main Battle Tank (In Trials)	10	152-mm, 2S3 Akatsiya, SP Howitzer	463	9K79 Tochka, SS-21 Scarab, Surface to Surface Missile	90
BRDM-1/BRDM-2Di Armored Recon Vehicle	UNK (600 in 2012)	152-mm, 2S5 Giatsint, SP Howitzer	24	Surface to Air (SA)-4 Ganef (2K11 Krug)	100
BMP-1 Infantry Fighting Vehicle (IFV)	994	152-mm, 2S19 MSTA-S, SP Howitzer	40	SA-8 Gecko (Osa-AK)	125
BRM-1K IFV	458	122-mm, 2S1 Gvozdika, SP Howitzer	600	SA-11 Gadfly (9K37, Buk-1M)	60
BMP-2 IFV	1434	122-mm, D-30A, Towed Howitzer	369	SA-13 Gopher (9K35, Strela-10)	150
BMP-3 IFV	4	122-mm, M-30, Towed Howitzer	2	SA-18 Grouse (9K38, Igla 2) MANPADS	UNK
BMD-1 IFV	60	120-mm PM-38, Towed Mortar	119	Anti-Tank (AT)-6 Spiral (9K114 Shturm)	UNK
BMD-2 IFV	78	120-mm, 2S9-1 NONA-S, SP	67	AT-5 Spandrel (9K113	UNK

Armored Equipment in Service		Artillery in Service		Missile/AD/AT/AVN in Service	
		Mortar		Konkurs)	
BTR-80 Armored Personnel Carrier (APC)	395	120-mm, 2B16, SP Mortar	2	AT-4 Spigot (9K111 Fagot)	UNK
BTR-70 APC	857	120-mm, 2S12, Towed Mortar	318	Helicopter, Mi-24 Hind Gunship	139
BTR-60PB APC	136	300-mm, 9A52 Smerch, SP MRLS (12-round)	80	Helicopter, Mi-8 Hip, Utility	38
BTR-D APC	44	220-mm, 9P140 Uragan, SP MRLS (16-round)	137		
		132-mm, BM-13, Truck Mounted MRLS	2		
		122-mm, BM21 Grad, SP MRLS (40-round)	315		
		122-mm, 9P138, Truck Mounted MRLS	20		

Ukrainian Air Force (As of April 2013)[49]

Fixed Wing Aircraft in Service		Rotary Wing Aircraft in Service		Air Defense Weapons in Service	
MiG-29 Fulcrum-A/C, Fighter (16 in storage)	140+	Mi-2 Hoplite, Transport	3	AA-7 Apex (Air-to-Air Missile, K-23)	UNK
MiG-23 Flogger, Fighter/Ground Attack	120	Mi-8 Hip, Transport (31 in January 2012)	UNK	AA-8 Aphid (K-60)	UNK
MiG-25 Foxbat, Fighter/Ground Attack	60	Mi-9 Hip-G, Transport (4 in January 2012)	NA	AA-9 Amos (K-100)	UNK
Su-27 Flanker, Fighter	50+	Mi-24 Hind, Attack	24	AA-10 Alamo (R-27)	UNK
Su-24 Fencer D, Fighter (Strike)	30	Mi-26 Halo, Transport	8	AS-9 Kyle (Air-to-Surface Missile, Kh28)	UNK
Su-25 Frogfoot-A Fighter, Ground Attack	35			AS-10 Karen (Kh-25)	UNK
Su-24 MR Fencer-E, Reconnaissance	8			AS-11 Kilter (Kh-58)	UNK
Su-24MP Fencer F, Electronic Warfare (EW)	140+			AS-12 Kegler (Kh-25MP)	UNK
IL-76 Candid, Transportation	160			AS-13 Kingpost (Kh-59	UNK
An-24 Coke, Transportation	3			AS-14 Kedge (Kh-29, some in January 2012)	NA
An-26 Curl, Transportation	21			AS-15 Kent (Kh-5, some in January 2012)	NA
An-30 Clank, Transportation	3			SA-2 Guideline (Surface-to-Air Missile, S-75 Dvina)	UNK
An-70 Antonov, Transportation (6-8 o/o)	0+			SA-3 Goa (S-125 Neva)	UNK
Tu-134 Crusty, Transportation	2			SA-5 Gammon (S-200 in fixed positions)	UNK
L-39C Albatros, Training	39			SA-6 Gainful (2K12 Kub, some in January 2012)	NA
				SA-10 Grumble (S-300P, SP)	NA
				SA-11 Gadfly (9K37, Buk-1M)	NA
				SA-12a Gladiator (S300V Antei)	UNK

Ukrainian Navy (As of April 2013)[50]

Vessels	
Submarine: ZHAPOROZYE FOXTROT Class	1
Frigate: Russian Krivak III Class	1
Corvette: Russian GRISHA V Class	3
Corvette: Russian GRISHA II Class	2
Corvette: Russian PAUK I Class	2
Guided Missile Patrol Craft: Russian MATKA Class	2
Guided Missile Patrol Craft: Russian TARANTUL II Class	2
Patrol Boat: Russian FLAMINGO Class	1
Patrol Boat: Russian ZHUK Class	1
Mine Warfare (Inshore Minesweeper): Russian YEVGENYA Class	1
Mine Warfare (Coastal Minesweeper): Russian SONYA Class	2
Mine Warfare (Minesweeper): Russian NATYA-I Class	2
Amphibious Hovercraft: Russian Pomornik Class	2
Amphibious LST: Russian ROPUCHA Class	1
Amphibious Medium Landing Ship: Polish POLNOCNY-C Class	1
Amphibious Tank Landing Ship: Russian TAPIR Class	2
Amphibious Mechanized Landing Craft: ONDATRA Class	2
Amphibious Mechanized Landing Craft: Russian T-4 Class	1
Auxiliary-Training Ship: Russian MOMA Class	1
Auxiliary-Command Ship: Russian KAMCHATKA Class	1
Auxiliary-Harbor Patrol: FLAMINGO Class	4
Auxiliary-Survey: NYRYAT 1 Class	4
Auxiliary-YPT: SHELON Class	1
Auxiliary: PO 2 Class	1
Auxiliary-Ambulance: U783	1
Auxiliary-Officers' Yacht: U853	1
Auxiliary: DRAKON Class	1
Auxiliary-Firefighting: POZHARNY Class	2
Auxiliary-Harbor Tug: SIDEHOLE II Class	1
Auxiliary-Coastal Tug: OKHTENSKY Class	2
Auxiliary-Tug: GORYN Class	1
Auxiliary-Tug: SCRUM Class	1
Auxiliary-Large Tug: PROMETEY Class	1
Training Ship: PETRUSKA Class	3
Training Ship: BRYZA Class	1

Aircraft	
Be-12 Mail, Maritime Patrol	3
An-26 Curl, Transport	2
An-24 Coke, Transport	1
An-12 Cub, Transport	1
Il-18 Coot, Transport	1
Tu-134 Crusty, Transport	1
Ka-27 Helix, Anti-Submarine Warfare (ASW)	16
Ka-25 Hormone, ASW	28
Ka-29 Assault, ASW/Transport	16
Mi-14 Hare, ASW	5
Mi-8 Hip, Troop Carrier	8
Mi-6 Hook, Troop Carrier	5

Crimean Takeover: Operational Overview

Crimea has long sought its independence from Ukraine because of its protracted association with Russia and the people's desire to rejoin the Russian Federation. Crimea had become the home to a large ethnic Russian population, many of which had served in the Soviet/Russian military. As far back as February 1994, Crimean politicians would make speeches declaring the Crimeans not only sought separation from Ukraine, but also a unification of Crimea with Russia. When Yuriy Meshkov won the first and only independent Crimean presidential election in 1994 with 73% of the votes, he stated, "In spirit, the Crimean people have been and remain part of Russia."[51] During the next couple of years, Ukrainian marines took possession of a number of naval facilities on Crimea, evicted the pro-Russian political leaders in Crimea, and ended the short-lived independent Crimea on 17 March 1995. With protests from Moscow, this eventually led to the 1997 treaty that divided the Russian naval facilities between the two countries and allowed for the Russians to maintain a military presence in Crimea, primarily to support the Russian navy's Black Sea Fleet. One of the most overlooked clauses in the agreement which allowed the February/March 2014 events to take place was the section that permitted Russian forces to implement not only security measures at their own permanent bases in Crimea, but to provide security for their own forces during deployment and redeployment movements to and from Russia. In the early stages of the crisis in late February 2014, this very minor clause in the treaty allowed the Russian military to move initially around Crimea without interference by any Ukrainian military personnel under the guise of the movement authorized by the military agreement between the two countries.[52]

The Russian military launched their operation in Crimea less than a week after Ukrainian President Viktor Yanukovych signed an agreement with the opposition political leaders on 21 February 2014 that confirmed early presidential elections would take place by the end of the year, ensured a national unity government would be created within a month, and guaranteed Ukraine would return to its 2004 constitution. Yanukovych then fled Kiev within 24 hours, however, instead of remaining in Ukraine to abide by the agreement. The timing also coincided with the scheduled military maneuvers in the Russian Central and Western Military Districts that obscured the Russian troop movements into the peninsula. The map in Figure 8 indicates the various activities from unclassified sources that took place in Crimea between the night of 27 February 2014 and 25 March 2014, when the Ukrainian government pulled its military forces from Crimea and ceded control of the peninsula to the Crimean "defense forces" backed by Russian military forces. This is not a complete list, but examples of activities from open sources that took place and the dates on which the events occurred. The numbering of the paragraphs matches the map in Figure 5 below.

1: Government Buildings

Less than a company of well-armed troops took control of the Crimean parliament building and cabinet of ministers' buildings in Simferopol, Crimea's capital city, on 27 February 2014. The 120 military personnel, armed primarily with machine guns and grenades, quickly seized the government buildings and hoisted the Russian flag at both locations. Ukraine, especially over the last 20 years, has shown a history of protesters taking control of public buildings, especially city halls. The control of public space is symbolic for the usurpers as it provides a visual picture suggesting that the government cannot defend itself.[53]

Figure 8. Russian actions in Crimea—February/March 2014

2 and 3: Transportation Hubs

On the night of 27 February 2014, several hundred unidentified armed personnel, likely mostly Russian military, seized the Simferopol civilian airport and the Sevastopol military airport. Approximately two Russian airborne battalions and some Spetsnaz forces then flew into Crimea under the pretext of protecting Crimea's Russian-speaking population. The control of these transportation hubs allowed Russia to regulate what forces could be brought into Crimea by air.[54]

4: Communications Network

During the day of 28 February 2014, armed personnel in uniforms who were supported by local militia took control of the Krym State Television Company and several Urktelecom facilities throughout Crimea. Urktelecom is the primary telephone and Internet communications provider in the region, and control of these communications facilities allowed the attackers to not just transmit, but shape their message to those living on the peninsula.[55]

5: Naval Blockade

Dropping the pretense of posing as local forces or claiming themselves to be self-defense forces, as they did just two days earlier, the Russian navy sank a ship at the entrance to Donuzlav Lake on 6 March

2014. This was done under the guise of protecting ethnic Russians, but was really to prevent the Ukrainian naval fleet from leaving its base in Novoozerne harbor. Previously, on 1 March 2014, the Russian parliament had approved Putin's request to use force in Ukraine to protect Russian interests. With the Ukrainian navy closed off from open water, their ships were powerless to confront any of the Russian ships at Sevastopol.[56]

Figure 9. Ship sunk by the Russian navy to block the entrance to Donuzlav Lake

6: INFOWAR

In Simferopol on 6 March 2014, armed men took control of all Ukrainian media stations still in operation in the city. Under the new "management," the stations replaced their regularly scheduled broadcasts with the Russian news channel Rossiya 24. The Russians continued their INFOWAR campaign by increasing their control of the messages transmitted through local media to the Crimeans.[57]

7: Block International Observers

Organization for Security and Cooperation in Europe (OSCE) observation teams attempting to enter Crimea for the third time on 8 March 2014 were turned back by warning shots fired by uniformed personnel who prevented them from crossing the Crimean provincial border. Keeping third-party observers to a minimum enabled Russian and pro-Russian self-defense forces to act with impunity, and afforded them control of message traffic transmitted from Crimea to external audiences.[58]

8: Targets of Opportunity

Once the major military bases were under Russian control or the Ukrainian military forces barricaded in, the Russian forces continued the campaign against other lesser military targets. On 10 March 2014, armed men occupied the Simferopol military hospital. This fully equipped hospital would be useful in treating Russian and pro-Russian personnel, while denying the same medical assets to the Ukrainian military.[59]

9: Internet Control

On 13 March 2014, Russia blocked the web pages of thirteen sites known for their pro-Ukrainian or anti-Russian/Putin sympathies. These included Vkontakte, Russia's leading social media website, which was also used by many Ukrainians. The social media groups, some with as many as 500,000 members, could not access the websites dedicated to their causes. In a very short time, the amount of negative Internet activity against Russia and Putin dropped considerably. The closure of the websites was an attempt to silence those who supported Ukrainian as opposed to Russian interests, and also to limit their activities in Crimea.[60]

10: Strategic Chokepoint

One natural gas pipeline provides most of the energy for the entire Crimean peninsula, and that pipeline flows from Russia through Ukraine to Crimea. Once Crimea proclaimed independence and later joined

the Russian Federation, controlling the natural gas pipeline became crucial to both sides. For whatever reason, the Ukrainian military failed to protect it, but Russian forces waited for two weeks before taking this strategic infrastructure node. On 15 March 2014, a small company of Russian soldiers took the natural gas distribution center near Strilkove, a thin strip of land between the Ukrainian mainland and the Crimean Peninsula. Only 60–120 troops, supported by armored vehicles and helicopter gunships, were needed to take possession of the distribution center. With the control of natural gas in pro-Russian hands, the Ukrainians were unable to turn off power to Crimea at this critical chokepoint. In response to this hostile action on Ukrainian soil, the Ukrainian military finally responded by preparing defensive positions along the Ukrainian/Crimean border.[61]

11: Overwhelming Force

After days of little resistance by the Ukrainian forces located in Crimea, two Ukrainian supporters—one military and one militiaman—died defending their base in Simferopol on 18 March 2014. Despite all the military activity and confrontation by Ukrainian and Russian military forces in Crimea over the past three weeks, these were the first deaths of Ukrainian military personnel. Reacting to the death of the Ukrainian soldier, the Ukrainian Minister of Defense (MOD) revoked a previous order to exercise restraint, and authorized Ukrainian military personnel to use deadly force to protect themselves. On the following day, the MOD announced that Ukraine would withdraw all 25,000 of its military personnel from Crimea and relocate them to other bases in Ukraine. A couple of deaths and the appearance of a well-armed superior enemy convinced the Ukrainian military to stop resisting and to relinquish control of its former bases to the Russian force and local pro-Russian self-defense forces.[62]

12: Intimidate

Russian military forces, assisted by some native defense forces to give it a local flavor, continued to seize Ukrainian military sites. They captured two naval posts, including the major Ukrainian base in Sevastopol, on 19 March 2014. While these actions were underway, Admiral Serhly Hayduk, the Ukrainian navy commander, was taken prisoner by pro-Russian forces. The militia forces unceremoniously dropped off the admiral at a new checkpoint recently erected on the Ukrainian/Crimean border. The local self-defense forces usually raised the Russian flag on any bases they captured. While Crimeans vocally expressed a desire for independence to the international community, the pro-Russian groups' actions almost always indicated their determination to become part of the Russian federation.[63]

13: Eliminate Crucial Weapons

On 21 March 2014, Russian-led forces overran the 174th Air Defense Regiment base located at Fiolent, a suburb of Sevastopol. The Crimean forces captured the unit's S-300 surface-to-air missile inventory before it could be destroyed. The Russian/militia forces also demanded the surrender of the defending Ukrainian unit; it complied, singing the "Hymn of Ukraine" as soldiers marched away from their base. The Ukrainian personnel system also worked to support the Russian intervention as conscripts and officers usually served in their home districts. This meant that most of the Ukrainians serving in Crimea were of Russian descent. It seemed that the Ukrainian soldiers preferred surrender and their life to death in a futile effort to keep Crimea as part of a country of a different ethnic heritage. The military forces that now occupy Crimea are very familiar with the Russian S-300 (NATO designation: SA-10 Grumble). Any operational S-300s can quickly become part of the Russian military arsenal with little

difficulty once missile experts complete safety inspections to ensure these weapons are in proper working order.[64]

Figure 10. S-300 Anti-aircraft missile

14: Limit Opposition Successes

After sitting bottled up in Donuzlav Lake for almost two weeks, a Ukrainian Natya-class minesweeper tried to escape on 21 March 2014 by evading the blockade set up by the Russian Navy. Other ships refused to assist Cherkasy in moving the sunken ships out of the way, so the minesweeper was forced to return to a defensive position in Donuzlav Lake. The Cherkasy's captain, however, still refused to follow the example of his fellow naval commanders who surrendered their vessels to Russian naval forces. With no coordination among ships and no assistance from what remained of the Ukrainian Navy in Crimea, there was probably no hope that one ship could do much against the entire Russian Black Sea Fleet. Eventually, the Russians forced the Cherkasy to surrender.[65]

15. Leave Difficult—but Not Strategic—Targets for Last

The Ukrainian military personnel at the Belbek Airbase attempted to defend their position from a follow-on attack by the Russians on 22 March 2014. The Russians had already taken over part of the airbase earlier in the conflict, but a portion of it remained under Ukrainian control. Facing Russian armored personnel carriers, the Ukrainian defense quickly faded, taking minimal casualties as only one Ukrainian officer was injured in the attack; Russian forces suffered no casualties. While some Ukrainian units or leaders attempted to defend their posts, the inability or lack of resolve displayed by neighboring Ukrainian units/leaders often proved contagious, causing comrades-in-arms to ponder whether their own deaths would be worth the cost, especially to any ethnic Russians in the Ukrainian military units.[66]

16. Barricade Forces inside Camps

Located on the eastern side of Crimea and geographically distant from most of the action that took place throughout the previous week, the Ukrainian 1st Marine Battalion was a formidable force in Feodesia. The marines, however, refused to fight and eventually surrendered on 24 March 2014. For several days, the 1st Marine Battalion's leaders had been negotiating with the Russian/militia forces surrounding the base. At some point negotiating parties apparently neared agreement on a settlement that would have allowed the marines to retain their weapons and depart the base en route to the Ukraine in a vehicle convoy. Ultimately, however, the negotiations failed and the marines surrendered unconditionally; several were then arrested. This occurred on the same day that all the other Ukrainian military personnel left Crimea on interim President's Oleksander Turchynov's orders.[67]

Operational Summary

In fewer than four weeks, the Russians, with support from local Crimean militia, captured approximately 189 Ukrainian military sites, often without firing a shot. Ukraine lost Crimea as much by its inaction on the peninsula as by Russia's actions. The Russians used no tanks, and the most advanced armored personnel carriers (APCs) used in these operations were BTR-80s. (See The BTR Handbook–The Universal APC Threat Report for details on this APC's capabilities.) The Russians and their Crimean supporters used a combination of naval blockades, barricades to prevent soldiers leaving their bases, psychological

Figure 11. Russian soldiers keep Ukrainian military personnel confined to their compound

warfare, intimidation, and bribery to convince most Ukrainian units to surrender without offering resistance. In units whose commanders initially refused to surrender, a few well-placed shots and a couple of resulting casualties typically sufficed to quickly change the resistors' minds. The abundance of ethnic Russians in the military units in Crimea who refused to fight for Ukraine and the lack of substantial action by the government in Kiev, gave the Russians a relatively easy military victory under the guise of protecting ethnic Russians. On 17 April 2014, Russian President Vladimir Putin finally revealed the worst-kept secret of the entire operation: those Russian troops were present in Crimea.[68]

The "Storming" of U-510 Slavutych

When the Russians and the local defense forces took over the Ukrainian naval vessels, the last ship to hold out in the Sevastopol harbor was the U-510, *Slavutych*, the Ukrainian navy's command ship. When the USSR laid the keel for the *Slavutych*, it was originally intended to serve as an intelligence ship, a sister ship to the Russian *Kamchatka*. With the demise of the Soviet Union, the vessel was completed as a communications/command ship in 1992. The *Slavutych* bears the name of a town constructed by the Soviets for the families evacuated from Chernobyl after the 1986 nuclear accident. Both Russia and Ukraine wanted to possess the ship, but the final decision to divide the former Soviet Black Sea Fleet placed the *Slavutych* in the Ukrainian navy.[69]

On 3 March 2014, five Russian tugboats prevented all Ukrainian ships from leaving their docks in Sevastopol. Armed personnel quickly seized the Ukrainian corvette, *Ternopil,* through the use of stun grenades and machine guns. Moored next to the *Ternopil*, the *Slavutych* moved away from the pier and anchored itself 10 meters away to prevent any shore-based boarding parties from reaching the ship. When divers attempted to board it the same day, the *Slavutych* used water cannons to drive them away. Armed personnel tried to board the *Slavutych* the following day, but the ship's crew again repelled the attackers.[70]

Figure 12. U-510 *Slavutych*, Ukrainian Command Ship

Two small Russian warships eventually replaced the tugboats and positioned themselves about 50 meters seaward from the *Slavutych*. Over the next three weeks, naval and ground forces kept a 24-hour watch on the Ukrainian command ship. After the Russian Black Sea Fleet commander boarded the *Ternopil* for an inspection of the captured vessel, the Russians gave the *Slavutych* and the rest of the Ukrainian navy bottled up at Donuzlav Lake until Friday, 21 March 2014, to surrender or decide to join the Russian Navy. Using various psychological techniques that included urging mothers of the sailors on board the *Slavutych* to call their sons on cell phones, up to 40% of the crew eventually deserted the ship.

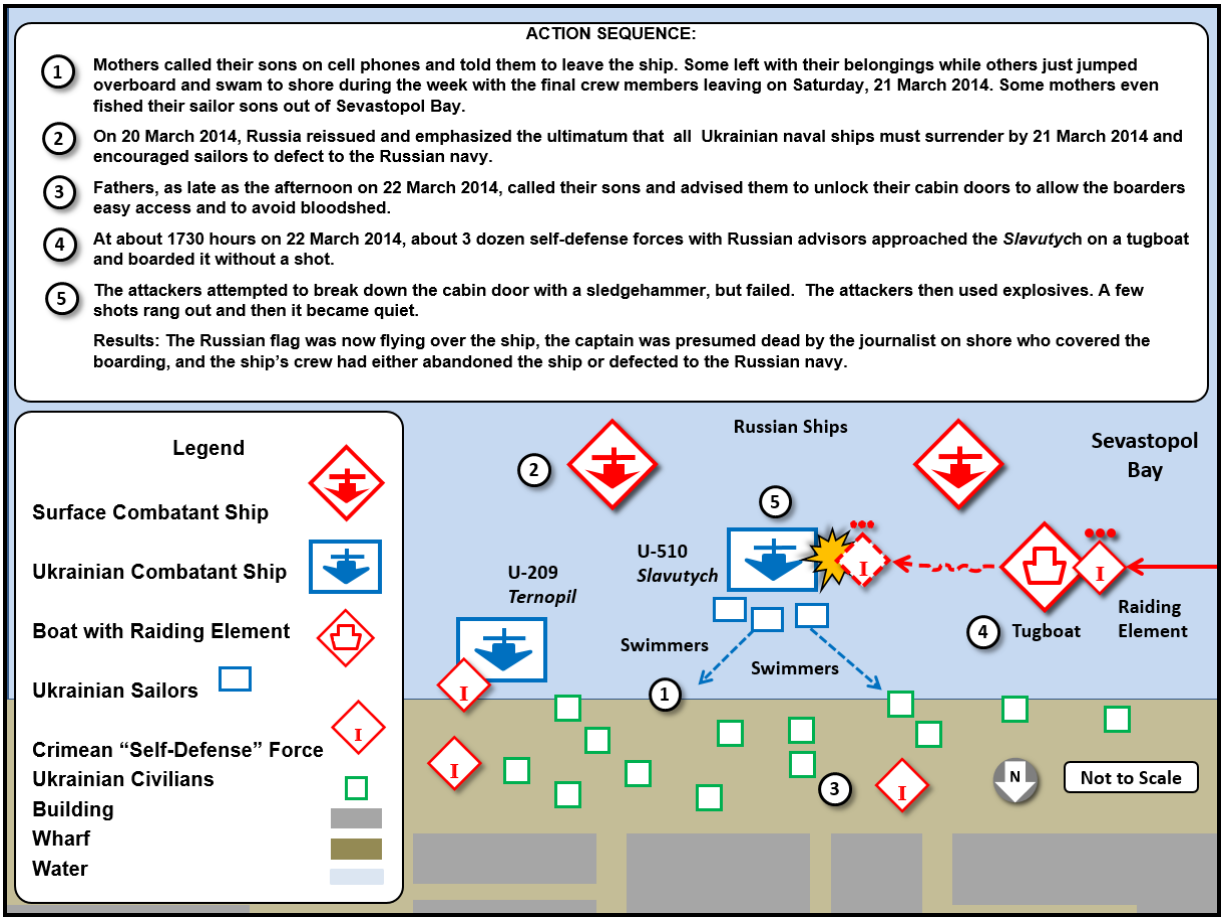

ACTION SEQUENCE:
1 Mothers called their sons on cell phones and told them to leave the ship. Some left with their belongings while others just jumped overboard and swam to shore during the week with the final crew members leaving on Saturday, 21 March 2014. Some mothers even fished their sailor sons out of Sevastopol Bay.
2 On 20 March 2014, Russia reissued and emphasized the ultimatum that all Ukrainian naval ships must surrender by 21 March 2014 and encouraged sailors to defect to the Russian navy.
3 Fathers, as late as the afternoon on 22 March 2014, called their sons and advised them to unlock their cabin doors to allow the boarders easy access and to avoid bloodshed.
4 At about 1730 hours on 22 March 2014, about 3 dozen self-defense forces with Russian advisors approached the Slavutych on a tugboat and boarded it without a shot.
5 The attackers attempted to break down the cabin door with a sledgehammer, but failed. The attackers then used explosives. A few shots rang out and then it became quiet.
Results: The Russian flag was now flying over the ship, the captain was presumed dead by the journalist on shore who covered the boarding, and the ship's crew had either abandoned the ship or defected to the Russian navy.
Legend
Surface Combatant Ship
Ukrainian Combatant Ship
Boat with Raiding Element
Ukrainian Sailors
Crimean "Self-Defense" Force
Ukrainian Civilians
Building
Wharf
Water
Russian Ships
Sevastopol Bay
U-209 Ternopil
U-510 Slavutych
Swimmers
Swimmers
4 Tugboat
Raiding Element
N
Not to Scale

Figure 13. Graphic portrayal of how the Russians and local self-defense groups took over the *Slavutych* on Saturday, 22 March 2014

On the day of the boarding, fathers also called, urging sons to stay in their cabins, unlock their doors, and leave them open, since the attackers would probably break down the doors anyway. Many of those on board were from Crimea and felt little allegiance to Ukraine. Some of the sailors were not technically members of the Ukrainian military, but working as civilian contractors; several just jumped overboard to escape. Their mothers came, fished them out of the water, and took them home. Many sailors chose to join the Russian navy, fearing that Ukrainian sailors who offered no resistance would be treated as deserters once they returned home. This was due to the scuttlebutt that some sailors who abandoned other ships had been arrested and were facing trial and possible prison sentences ranging from five to seven years. Other sailors simply chose to join the Russian Navy because they were native Crimeans, ethnic Russians, or married to local Crimean women; for them loyalty to family, heritage, or ship trumped national allegiance.[71]

Despite all the psychological and family pressure, the *Slavutych's* captain and some of the crew refused to surrender their ship and remained loyal to the Ukrainian government in Kiev. It soon became common knowledge that the local defense forces would attack the *Slavutych* on Saturday, 22 March 2014. During the afternoon, several of the ship's crew—some in uniform and some in civilian clothes—

left the *Slavutych* carrying their possessions in black plastic. At approximately 1730 hours local time, a tugboat with a few dozen men approached the Ukrainian ship while bystanders watched from the pier. While it appeared that the attackers were part of the self-defense forces, at least one witness alleged that the tugboat carried Russian special operations personnel. Sailors aboard the *Slavutych* used their loudspeaker system to warn the approaching vessel against illegally boarding the ship, but to no avail. The Ukrainian ship then began to play the patriotic song *Varyag,* a heroic composition dating back to the Russo-Japanese War.[72]

The attackers on the tugboat reached the *Slavutych*, and then boarded it. By that time, almost everyone had surrendered except for the ship's captain, who had locked himself in his cabin. The attackers first tried to use a sledgehammer to break the door down. When that failed, they resorted to grenades. A few gunshots rang out after the sledgehammer echoes faded and the grenades exploded, but soon the Ukrainian flag came down from the mast and the boarders raised a Russian flag in its place. The storming of the *Slavutych* was over in mere minutes.[73]

The capture of the *Slavutych* is a perfect example of an attack to gain control of equipment as described in Training Circular (TC) 7-100.2, *Opposing Force Tactics*. The only difference is that the attack occurred on water instead of land. While the Russians may call the units that took part in the attack different names, the groups consisted of raiding, security, and support elements.[74]

Eastern Ukraine 2014–2015

Almost immediately after the action in Crimea, separatists began military operations in eastern Ukraine. Most of the fighting occurred in the Donetsk and Luhansk oblasts (collectively known as Donbass), areas with significant ethnic Russian populations. Pro-Russian demonstrations and limited military operations had been going on since the ouster of Yanukovych, but during March and early April 2014 pro-Russian separatists began seizing government and municipal buildings and installing "people's governments" in Donetsk and Luhansk.

Building on previous experience in Georgia and Crimea, the Russians used their covert operatives, SPF troops, and INFOWAR to equip, guide, and advise pro-Russian separatists in Donbass. Unlike the previous operation in Crimea, the population was not completely supportive of the pro-Russian separatists. This required Russia to push the INFOWAR campaign to justify their support for the pro-Russian forces in Donbass. Russia did not move into Donbass as a reaction to the Euromaidan protests, or the Crimea "crisis"—this was a part of Russia's long-term strategy for Ukraine. Events in Kiev just moved Russia's timeline up.

Andrey Illarionov, former advisor for Vladimir Putin, said in a speech on 31 May 2014 that some technologies of Russo-Georgian War were updated and again being exploited in Ukraine. According to Illarionov, since the Russian military operation in Crimea began on 20 February 2014, Russian propaganda could not argue that the Russian aggression was the result of Euromaidan. The war in Ukraine did not happen "all of sudden," but was pre-planned and the preparations began as early as 2003. Illarionov later stated that one of the Russian plans envisaged war with Ukraine in 2015 after a presidential election, however Maidan accelerated the confrontation.[75]

Military Forces

Ukrainian Forces numbered approximately 50,000 soldiers.

Ukrainian Defense Ministry

- Armed Forces of Ukraine
- Ukrainian State Border Guard
- Ukrainian Security Services

Ukrainian Internal Affairs Ministry

- National Guard
- Territorial Defense Battalions

Pro-Russian Separatist Forces

Pro-Russian Separatist forces numbered approximately 10,000-20,000 troops. These numbers fluctuated due to defections, conflicting allegiances, and independent "militia" groups that fought intermittently. The confusion on number of active fighters and sympathizers was an advantage to the separatists as the Ukrainian forces never really knew how large the forces they faced would be. The separatists operated in squad- to platoon-size elements and used harassment tactics (ambushes, mortar and artillery attacks) to confuse the Ukrainian forces.

Breakaway/Separatist Governments

- Novorossiya
- Donetsk People's Republic
- Luhansk People's Republic

Militias/Insurgent Organizations

- Donbass People's Militia
- Vostok Battalion[76]
- Russian Orthodox Army[77]
- Army of the Southeast[78]
- Oplot Battalion[79]
- Zarya Battalion[80]
- Kalmius Battalion[81]
- Cossacks
- Chechen and Volunteers from the Caucuses
- Ukrainian police and military defectors
- Union of Mine Workers[82]

Russian Federation

Russia denies that any Russian forces are fighting in Donbass, but reports of professional-looking, well-trained, Russian-speaking fighters assisting the local militias are widespread. Russia has also been

suspected of firing artillery over the border in support of the separatist militias. The Russians have stated that if there are Russian soldiers in Ukraine, they are "on leave" and are not fighting in an official capacity. The exact number of Russian soldiers is unknown, but there have been reports and sightings of Russian military equipment moving across the border from Russia into Donbass.

- Spetsnaz Forces
- Russian Army "Volunteers"
- Russian Paramilitary Fighters

History of the Conflict

Since the dissolution of the Soviet Union, the Donbass section of Ukraine has been a predominantly ethnic Russian enclave. The Russian population in eastern Ukraine has generally been 20–60% of the populace, depending on the Oblast. The graphic below shows the ethnic breakdown in Ukraine as of the 2001 Census.

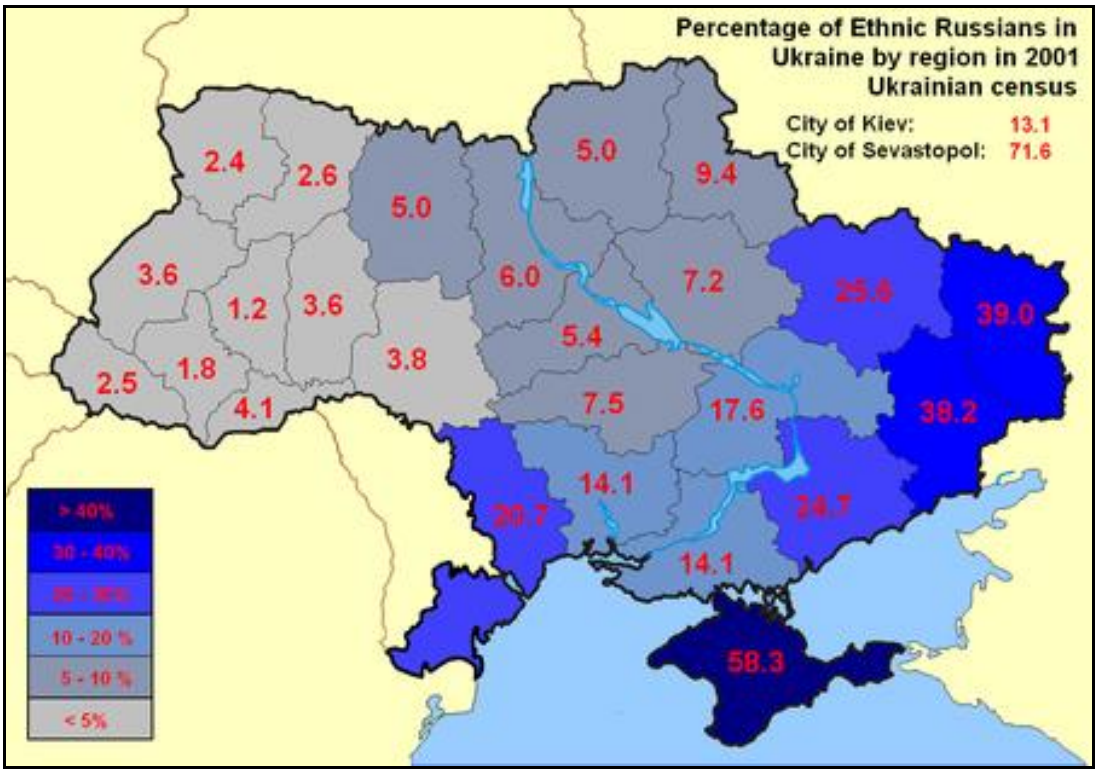


Figure 14. [2001 Census State Statistics Committee of Ukraine]

The Russians in the east generally tended to live in the cities, working in industrial jobs. The Ukrainians usually lived in the smaller cities, towns, villages, and rural areas. This area has historically had few problems between Russians and Ukrainians, until the conflicts in 2014–15.

The Russian population did not show any signs of not wanting to be Ukrainian citizens, but did favor good relations with Russia. Russia used this situation to slowly and methodically build up a network of covert operatives, insurgent organizations, political parties, and Russian civic organizations and clubs that pushed the narrative of Russian oppression by the Ukrainian majority. As stated by Andrey Illarionov, former advisor of Vladimir Putin, the Russians started this effort as early as 2003, planning for possible conflict in 2015. Building on the success of the operation in Crimea, the Russians used the same approach in Donbass, using the same tactics that were discussed in the Crimea section.

Seize Government Buildings

Pro-Russian protests had been going on in Donbass since the Euromaidan protests began in Kiev. They became more vocal, violent, and frequent in late February of 2014. Protesters had attempted to seize the Donetsk Regional State Administration (RSA) building several times in February, and occupied the RSA from 1–6 March 2014 before being evicted by Security Service of Ukraine (SBU). On 6 April, 1,000–2,000 people gathered at a rally in Donetsk to demand a status referendum similar to the one held in Crimea in March.[83] The demonstrators stormed the RSA building and took control of its first two floors. They said that if an extraordinary legislative session was not held by regional officials to implement a status referendum, they would take control of the regional government with a "people's mandate," and dismiss all elected regional councilors and members of parliament. As these demands were not met, the activists held a meeting in the RSA building, and voted in favor of independence from Ukraine. They claimed the Donetsk People's Republic (DPR).[84] Separatists also occupied the SBU building in Luhansk on 9 April 2015, and began setting up a shadow government in Luhansk.

After proclaiming the new republic, government buildings in Druzhkivka, Horlivka, Kramatorsk, Makiivka Mariupol, Sloviansk, Yenakiieve, and Zhdanivka were occupied by the separatists. The basic tactic was to call for a demonstration, assure that the militias and those political leaders that supported separatist goals were present, and then simply encourage the crowd to swarm the building. Most times, security personnel in the building allowed the separatists to occupy the building, assisted them, or did not show up to work that day. Separatists also took over buildings on days when they knew the staff would not be there—weekends, holidays, etc. Separatists were also able to take over armories and distribute weapons to supporters. They then erected barricades and fortified positions outside of government buildings, police stations, and municipal centers.

Once the DPR had a foothold in Donetsk, they began to appoint ministers, mayors, and municipal workers, giving the DPR a sense of legitimacy. The new “government” attempted to take over civic administration such as water, electricity, garbage collection, etc., but with no support from the Ukrainian government, services were significantly degraded.

This swift seizure and control of governmental responsibilities is all part of the Russian template for waging war. The main goal is to gain control of key centers of power and government with a small, dedicated core of supporters assisted by Russian advisors and volunteers. This makes the uprising look bigger that it actually is, appearing to have widespread support. Once in power, the new DPR called for a referendum on independence. This move allows the new government time to solidify power, establish governance, and organize local and foreign militias to defend against the inevitable counteroffensive. It

also gave Russian paramilitaries, volunteers, and SPF time to infiltrate weapons and fighters into Donbass. On 12 April 2015, Igor Girkin, a retired colonel in the Russian GRU, along with fifty-two supporters, stormed the police department and several other municipal buildings in Sloviansk. Girkin and most of his men were from Crimea, and were quickly joined by two hundred local supporters. Girkin expected the Russians to invade Donbass in a repeat of the Crimean seizure. All through Donbass, local militias assisted by foreign volunteers were setting up checkpoints, taking over government buildings, and installing new officials. As all of this is occurring, the DPR continued its campaign for statehood in the media, using TV, radio, and social media. This was generally unsuccessful, as many polls indicated that 50-75% of the population did not support independence for Donetsk.

On 13 April 2015, the Ukrainian Army attempted to take back the RSA building in Donetsk. Ukraine used helicopters and rocket launchers in the attack but were unsuccessful. They did manage to destroy several separatist checkpoints, but were otherwise ineffective. Pro-Russian militias also broke up pro-Ukrainian rallies and put several demonstrators in the hospital.

Transportation Hubs

Separatists set up checkpoints throughout Donbass to prevent or at least slow down any reinforcements from the Ukrainian Army or pro-Ukrainian militias. On 15 April 2015, an armored column sent by Ukraine established a checkpoint 40 km from Sloviansk. The SBU claimed that the rebels there had been reinforced by several hundred soldiers from Russia's Main Intelligence Directorate.[85] Separatists also manned checkpoints in most major cities and towns to control movement and traffic. Finally, separatists managed to gain control of most of the border checkpoints on the Russian border. This allowed for free movement of Russian convoys containing weapons and equipment for the separatists. On 16 April 2015, six BMD-2 armored vehicles were captured by the separatists at a checkpoint near Kramatorsk. Images later showed the vehicles being driven by separatists. Fourteen Ukrainian Armored Personnel Carriers (APCs) with 100 soldiers were surrounded by a large crowd in Pchyolkino, but were able to leave after surrendering their ammunition.[86] The commander of Ukraine's airborne troops, Col. Alexander Sveths, another officer, and a civilian contractor were abducted after refusing to lay down the weapons.

Col. Sveths, the officer, and the contractor were released on 18 April 2015. This tactic allowed the rebels to control movement in certain areas of Donbass, monitor Ukrainian Forces' movements, acquire equipment and disarm Ukrainian troops, and supported the Russian INFOWAR campaign that portrayed the Ukrainian government and Armed Forces as incompetent.

INFOWAR

Russia has had an extensive and thorough INFOWAR campaign in eastern Ukraine. Much like Crimea and Georgia, Russian TV, radio, and Internet were available and predominant in Donbass and other ethnic Russian areas. A steady stream of anti-Kiev propaganda was available to those who wished to access it, and slowly the message of the "oppressed Russian minority" began to gain acceptance. The events in Kiev and Crimea in 2014 only affirmed this in the minds of many Donbas residents.

Russia then activated a vast network of insurgents, political operatives, and covert intelligence agents that began to organize military operations in Donetsk and Luhansk. The Russians used networks of *Internet trolls*—individuals who set up phony blogs to discuss the situation in Donbass and push the Russian narratives. Most of these networks were set up and operated out of Russia by Russians who worked for "independent" companies that paid their employees with cash and had no paperwork or records for plausible deniability.[87] Videos were also produced that showed "ethnic Russian residents of Donbass" commenting on the situation in Donbass. The Russians were exposed when it was discovered that the same person was used in multiple videos that were attributed to the Euromaidan Protests, Crimea, and Donbass.

Targets of Opportunity

Separatists were adept at using social media and cell phones to organize large groups of civilian protesters, using information from those manning checkpoints, and separatists acting as recon assets. In many cases this allowed the separatists to engage targets of opportunity. In Pchyolkino, a village south of Sloviansk, several citizens surrounded fourteen Ukrainian armored vehicles from the 25th Airborne Brigade and forced them to leave and surrender their magazines before they turned around. This led Ukrainian President Turchynov to disband the brigade.

This tactic is effective in two distinct ways. First, it allows the separatists to make up for the disadvantage in weapons and personnel by using civilians to confront military personnel. The potential for unarmed civilian casualties at the hands of armed military men would be an INFOWAR disaster for the military side. Second, it shows that the separatists were able to isolate small military formations and overwhelm them with sheer numbers once they were close. Forcing the Ukrainian soldiers to surrender magazines and ammunition also gave the separatists an INFOWAR victory.

Intimidation

Separatists used intimidation tactics to coerce mayors, civic authorities, and police forces to side with them. Those who failed to do so were replaced, and in some cases imprisoned, beaten, or killed. Humanitarian aid was also prevented from reaching civilians, unless it came from Russia or pro-Russian nongovernmental organizations (NGOs).

Limit Opposition Success

By using all of the tactics listed above, the separatists managed to limit the Ukrainian Armed Forces' success in taking back Donbass. The separatists did not require a total victory; they just need to hold on to a few key population centers, control the movement of supplies, foreign "volunteers," Russian paramilitaries and soldiers allegedly on leave, and arms. Russia has undoubtedly been funneling arms to the rebels to reinforce them and limit Ukrainian success. On 26 August 2014, a mixed column composed of at least three T-72B1s and a lone T-72BM was identified on a video from Sverdlovsk, Ukraine by the International Institute for Strategic Studies. The sighting undermined Russia's attempts to maintain plausible deniability over the issue of supplying tanks and other arms to the separatists. Russia continuously claimed that any tanks operated by the separatists must have been captured from

Ukraine's own army. The T-72BM is in service with the Russian Army in large numbers. This modernized T-72 is not known to have been exported to nor operated by any other country.[88] Reuters found other tanks of this type near Horbatenko in October 2014.[89] In November, the United Kingdom's embassy in Ukraine also published an infographic demonstrating specific features of the T-72 tanks used by separatists not present in tanks held by Ukrainian army, ironically addressing it to "help Russia recognize its own tanks."[90]

Once the rebels establish a foothold with control of local governments and infrastructure, they can appeal to Russia for recognition as a de facto independent state and call for referendums on independence, thus establishing legitimacy. Another factor in eliminating opposition success is time. The longer the separatists stay in power with minimal setbacks the better. The separatists realize that they cannot ultimately defeat the Ukrainian Armed Forces alone, but if they can keep Donbass in a state of perpetual conflict, then they can attempt to get a favorable diplomatic resolution to the crisis they created.

Battle of Donetsk Airport

After initial hostilities broke out in Donbass, the Donetsk Airport became a key piece of terrain for both the separatists fighting for the Donetsk People's Republic (DPR) and the Ukrainians. The Ukrainians feared that Russia would use the airport to insert troops into Donbass as they had done in Crimea, so it became essential for the Ukrainians to maintain control of the airport. The Donetsk Airport was also symbolic to Ukraine, as it had undergone extensive renovations and had a new terminal, hotels, and housing built for the EURO 12 soccer championships in Donetsk.

On 26 May 2015, separatists captured the terminal building and demanded that Ukrainian forces vacate other buildings on the airport. Ukrainian National Guard troops then issued an ultimatum to the separatists, which was quickly rejected. Ukrainian paratroopers attacked the DPR positions, supported by fixed wing and rotary wing assets. By nightfall on 26 May 2014, the Ukrainians were in control of the airport. Ukraine maintained control of the airport until September and the Minsk Protocol ceasefire agreement, signed on 5 September 2014. Sporadic gunfire and shelling of the airport had continued through the summer, and it increased after the ceasefire.

The separatists ramped up attacks in the last days of September, using mortars and artillery fire in harassing attacks. On 28 September 2014, DPR forces attacked the Ukrainians using tanks and artillery. Eight Ukrainian soldiers were killed when their APC suffered a direct hit from a tank shell. Twenty-seven Ukrainian soldiers were also wounded. Separatists used the terrain to their advantage, taking up positions in apartment blocks that overlooked the airport. The DPR troops used these positions to direct artillery and for sniper positions. They also took advantage of the inevitable Ukrainian response—artillery fire on rebel positions—to advance their INFOWAR campaign. When the Ukrainians fired artillery or mortars at the rebels in the apartments, there was unavoidable collateral damage in the form of property damage and the occasional civilian casualty. This was exploited by DPR and Russian media outlets. Displaced civilians were also used as a source of propaganda, despite the fact that they had been displaced by the very rebels that were now using them in their INFOWAR campaign.

The DPR forces began to place artillery and rocket systems in the urban areas around the airport, and on 1 October 2014 ten civilians (all adults) were killed by artillery fire when a bus stop and a school were hit, although it was never established who was responsible.[91] This was exploited by the DPR and became instrumental in swaying public support around the airport to the DPR. DPR forces, supported by tanks and artillery, began to move into the airport on the same day, and were able to capture several hangars, a fuel storage facility, and a few outer buildings, maintenance sheds, and small storage sheds. The rebels then moved artillery and tanks up to these positions and began to bombard the Ukrainians in the old and new terminals and the air traffic control tower.

From 1–3 October 2014, the rebels managed to take over the hotel, police station, and part of the old terminal. By 5 October 2014, the situation had turned into a stalemated artillery duel. The DPR forces were holed up in the buildings they had taken, and the Ukrainian forces were positioned mainly in the new terminal and control tower. Once the DRP gained a foothold at the airport, they began to reinforce their position with weapons and troops.

The Ukrainians managed to push the rebels out of half of the old terminal the next day, beginning a situation that saw the Ukrainian forces and DPR forces occupying and controlling parts and different floors of the same building. At one point, the rebels controlled the underground tunnel network and second floor of the new terminal, while the Ukrainian forces occupied the first floor and the third and fourth floors at the same time.

For the next two months, the rebels and the Ukrainians exchanged artillery, mortars and rocket fire, most of it centered on the control tower. As the battle raged, reinforcements poured in on both sides. Ukrainian members of the Right Sector paramilitary/militia group arrived to assist the beleaguered Ukrainian Army forces. The Russians funneled civilian volunteers, Russian soldiers “on leave,” and Spetsnaz and Airborne troops into the airport. The Russians also supplied tanks, artillery, and multiple rocket launcher (MRL) systems. This was a macro version of the Russian tactics of Limiting Opposition Success, Isolating Government Forces, and Leaving Difficult Targets for Later (the air traffic control tower). The DPR forces were content to wait out the Ukrainians and maintain control of what they had already conquered at the airport while the DPR negotiated a favorable settlement.

As the stalemate continued into late November of 2014, the Ukrainian government accused the Russians of sending Spetsnaz commandos to the fight at the airport. The Russians denied this despite intercepted radio transmissions of DPR troops speaking a distinctly Russian dialect. The Russians continued the strategic ambiguity façade until 2 December 2014 when they sent Russian Lt. General Aleksandr Lentsov to negotiate a ceasefire with Ukrainian Lt. General Vladimir Askarov. The curious fact that the Russians sent a Russian General to negotiate a ceasefire in a conflict where there were “no Russian troops” fighting, no Russian material and logistical support, and no Russian intelligence assistance only added to the absurdity of Russian claims that they were not helping the DPR. Again, this all fits into the Russian INFOWAR campaign—create a crisis, deny involvement, appear to be above the fray while secretly supporting one side, and then assist the aggrieved party by engaging in negotiations for a favorable outcome.

On 5 December 2014, heavy shelling forced the Ukrainian forces to abandon the old terminal. The battle now centered on the new terminal and the air traffic control tower. By this time the airport was useless for airline traffic—the runway was almost completely destroyed, as were the new and old terminals, and the control tower. The civilian areas around the airport were also in ruins. The village of Pisky was heavily damaged and was one of the few areas outside of the airport that the Ukrainian forces controlled. Pisky gave the Ukrainians control over the main supply route (the so called "Road of Life") for the besieged troops at the airport. The battle lines remained relatively stable until 29 December when the DPR launched attacks on Ukrainian positions throughout the airport.

The rebel attacks did little to change the situation on the ground. Both sides continued daily shelling and infantry attacks until 12 January 2015. The DPR gave the Ukrainians an ultimatum to leave the airport by 1700 hours. The Ukrainians ignored this and the DPR began heavy shelling of Ukrainian positions, to include the air traffic control tower which collapsed that night. DPR forces were then able to get within 400 m of the Ukrainian positions.

On 17–18 January 2015, the Ukrainians launched an assault on the entire airport and almost cleared the facility of DPR forces. During this assault the Ukrainians shelled targets in and outside of the airport, resulting in extensive damage to residential areas adjacent to the airport. The Ukrainian troops pushed the DPR out of the airport and a fight for the Putylivskiy Bridge which connects the airport and the city.[92] The momentum swung back to the DPR on 19 January 2015, when the rebels were able to take back most of the airport. Both sides had taken significant casualties, the DPR claimed that 62 of its fighters had been killed or injured and the Ukrainians claimed 100 killed and wounded. Another major assault by the Ukrainians was repelled by the DPR (with help from Russian advisors and Russian tanks, APCs, artillery, and multiple rocket launcher systems [MRLS], that conveniently appeared at this crucial time in the battle).

The DPR troops managed to collapse the second floor of the new terminal with explosives (with the help of Russian engineers, according to the Ukrainians), and this killed and wounded a significant number of Ukrainian troops. Those who survived were taken prisoner. This was a turning point in the fight, and after this the DPR gained control of the now destroyed airport.

In the aftermath of the fight, the DPR had control of a non-functioning airport that would require extensive repairs to serve as an airport or airfield. The control tower was a twisted heap and the runway was pock marked with mortar and artillery shell holes. The Russians had also been exposed as actively supporting the DPR with soldiers, equipment, and advice. Despite all evidence to the contrary, the Russians maintained that they were not involved and continued to press for a negotiated settlement to the Donbass crisis. The Ukrainians, even though they had been defeated militarily, had surrendered a non-functional, destroyed airport to the rebels, and had shown an ability to put up a good fight, even if they were eventually beaten.

Tactical Vignettes: Separatist and Russian Tactics in Ukraine

The following tactical vignettes explore two tactical actions in detail, accompanied by tactical diagrams to graphically depict the actions.

1. Simple Battle Position Defense in Airport Rubble

Separatist paramilitary and Russian military forces defended against numerous assaults by Ukrainian military forces in the infrastructure rubble of the Donetsk airport.[93] Continuous combat actions severely damaged or destroyed buildings, terminals and main concourse, and support facilities. Close combat among dismounted soldiers were engagements often only meters apart. Simple battle positions (SBPs) oriented on likely enemy directions of attack and used available materiel in the airport to fortify fighting positions and create obstacles to disrupt assaults and shape kill zones in the complex urban corridors.[94]

As Ukrainian and separatist or Russian forces struggled for control of the airport, the complexity of this multidimensional urban terrain called for plans and actions that considered aspects of surface, super-surface, subsurface, and aerial space. Camouflage, cover, concealment, and deception (C3D) was skillfully used to create kill zones focusing combat power with frontal or flanking direct fires from SBPs.[95] Once Ukrainian elements were located in the airport, direct and indirect fires were massed to isolate and defeat or destroy the Ukrainians. Opposing SBPs were often so close to each other that neither indirect fires nor attack aviation could be employed. One example of direct fires in January 2015 included a main battle tank (MBT) team of two tanks supporting other separatist defenders in a terminal building complex with 125-mm main gun fires into a Ukrainian battle position.[96]

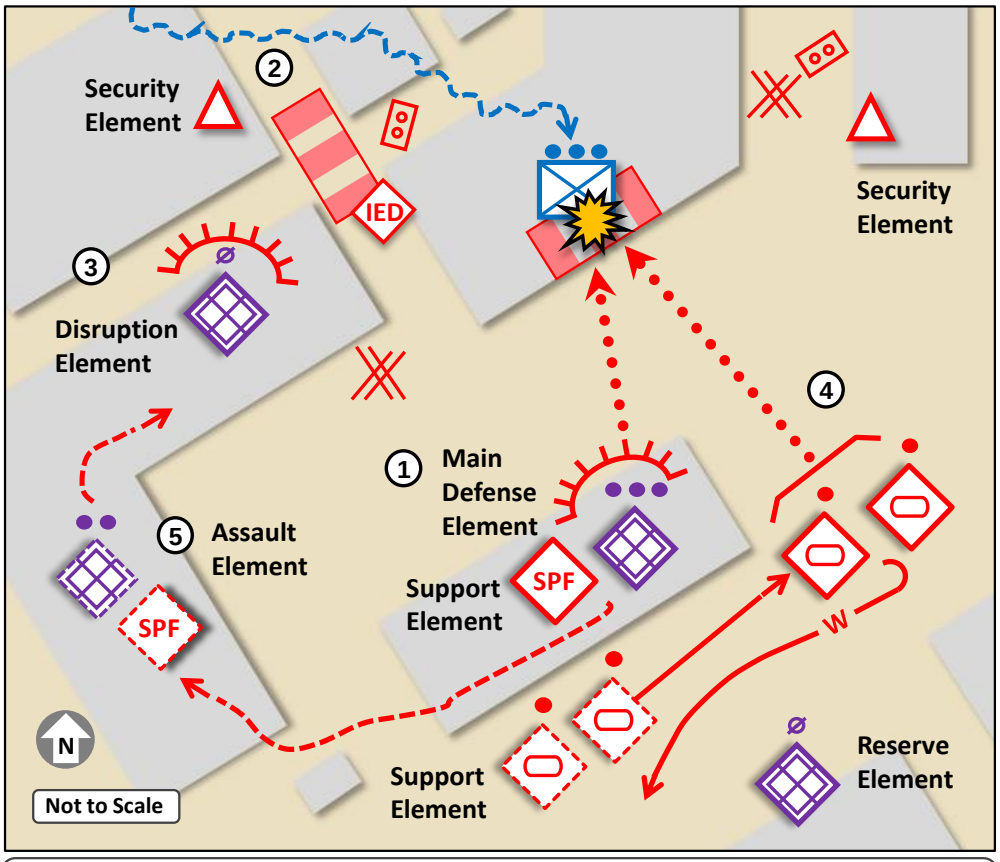
When conditions were appropriate, separatist and Russian elements transitioned from defensive to offensive actions, but were flexible in reverting to the defense when necessary. As long as separatists held portions of the Donetsk airport, they prevented its use to Ukrainian forces as a practical military capability, and presented a symbol of separatist [and Russian] commitment to a long-term persistent conflict in the region.

Training Implications

These type of defensive tactics are evident in the US Army's Training Circular (TC) 7-100 series for training against threats in complex operational environments (OEs).[97] In the Donetsk airport, separatist and Russian disruption elements had *security* functions of defeating enemy reconnaissance efforts; determining the location, disposition, and composition of Ukrainian forces; and in some cases targeting designated elements of the Ukrainian combat system. Elements conducting the *main defense* were often platoon or smaller, and immediate *reserves* may be as small as a squad or team-size element. A *support* element typically supported direct and/or indirect fires, ad hoc engineer capabilities or specialized augmentation by Russian forces posing as irregular elements, and combat service support focused on ammunition, rations, and water resupply, and medical evacuation. Command and control was often by personal presence or by unsecure radio or cellular telephone to coordinate defensive actions of—

- Select defensive kill zones on known or likely enemy approaches.
- Establish SBP using C3D.
- Conduct security tasks to detect, disrupt, and/or delay approaching enemy.
- Orient available armored fighting vehicle (MBT) support.[98]

- Mass defensive fires into the kill zone.
- Decide if an assault is appropriate to complete defeat or destruction of the enemy.
- Complete defeat or destroy the enemy.
- Consolidate combat power of SBP and reorganize as required to continue defense of the SBP.
- Continue the mission task.[99]



1. Separatists and Russian elements establish SBP oriented on likely kill zone.
2. Security element reports approaching enemy and bypass of kill zone.
3. Disruption element cannot engage enemy but reports enemy starting to occupy a defensive position to the east in concourse.
4. Separatist leader coordinates for MBT team to maneuver from hide position and engage enemy position as separatist platoon commences engagement. Reserve remains uncommitted and ready to act.
5. Separatist leader alerts section for movement along route cleared by disruption element. When ordered, section assaults to defeat enemy.

Figure 15. Separatist-Russian elements defend simple battle position (example)

Information warfare with continuous audio and video releases to regional and global social media aimed at promoting separatist actions as a legitimate claim for independence, as well as presenting images and stories to diminish and defeat Ukrainian resolve to continue combat actions.[100] Russia, even with credible evidence of their direct participation, continued to deny direct involvement in this Ukrainian conflict.

Several functional characteristics apply to this example of simple battle positions and armor support in a complex urban environment. Defensive actions can be analyzed as a disruption zone, a battle zone that could transition to an attack zone for limited offensive actions, and a support zone.[101] The disruption zone does not always exist in defense of an SBP, but can provide early warning of an enemy approach and/or delay an enemy assault into friendly forces.[102]

Armored fighting vehicles in many situations serve an anti-infantry role based on their protection, mobility, and firepower.[103] Separatists and Russians were attentive to Ukrainian anti-armor capabilities and usually kept their armored vehicles in hide positions until called to act in an engagement. Some armored vehicles were also used for resupply and medical evacuation tasks.[104]

Figure 16. Tank team prepares to engage Ukrainian position

When a defensive posture changes to an offensive mission task, task organization of an element can typically consist of the following functions: security element, clearing element, action element (as in an assault), and support element. The *security element* provides local tactical security and prevents the enemy from influencing mission accomplishment. The *clearing element* ensures the action element has a direction of attack clear of obstacles, debris, and rubble that would disrupt its movement and maneuver. The *action element* moves from a covered and concealed position and maneuvers to fight and accomplish the primary tactical task such as assault. The *support element* provides C2, combat support, and combat service support.[105]

Military and paramilitary elements in simple battle positions can create conditions that deny an enemy success in terrain or facility objectives, and/or provide time for friendly force reinforcements to arrive, seize the tactical initiative, and transition to the offense.[106] Complex urban terrain provides significant advantages as a multidimensional operational environment (OE) to a trained force; however, leaders must plan for the likelihood of decentralized C2 to small-echelon elements, be willing to accept the probability of increased casualties, high consumption of logistics, and methodical time-consuming operations that can require large-echelon forces in the contested area of responsibility.

Note. The SBP figure is a generalization. Military symbols and echelon amplifiers for separatist, Russian, and Ukrainian elements are estimates for the purpose of tactical illustration.

2. Assault in Multi-Level Building

Russian military and separatist paramilitary forces conducted offensive actions against Ukrainian military forces in the infrastructure rubble of the Donetsk airport. Engagements among individuals were close combat, often only meters apart. Multi-level buildings often developed into horizontal and vertical

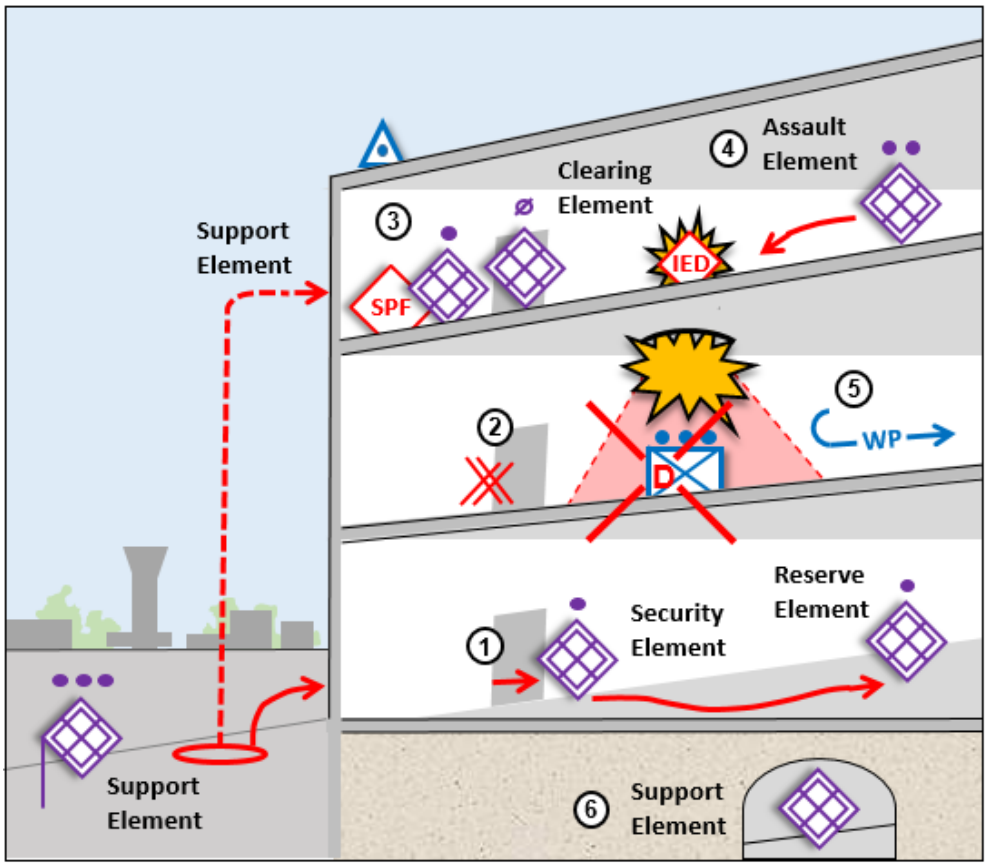

Support Element
Clearing Element
Assault Element
SPF
IED
WP
Security Element
Reserve Element
Support Element
Support Element
1 Separatists-Russians seize ground floor after close combat with Ukrainian elements. Ukrainian elements withdraw to second floor and barricade access.
2 Separatist leader secures ground floor and coordinates seizure of third floor.
3 Support element with Russian SPF engineer assistance, emplaces IED to collapse portion of second floor ceiling on Ukrainian element.
A clearing element and support element positioned behind barriers prepare to clear debris-rubble for the assault element immediately after IED detonation.
4 Assault element penetrates into second floor to destroy Ukrainian element and continues to clear building areas with support and reserve elements.
5 Ukrainians not killed by IED withdraw under pressure from building. Artillery observation post remains temporarily on building roof.
6 Separatist C2 uses maintenance tunnel for movement and logistics resupply.

Figure 17. Separatist-Russian assault a multi-level building (example)

defensive engagements and assaults on SBPs.

Buildings, terminals and main concourse, and support facilities were severely damaged or destroyed during continuous combat actions. Actions occurred in some instances where separatists and Russians occupied one level of a building, Ukrainians were in the next upper floor, separatists and Russians were on a floor level above the Ukrainians, and other areas of a building were temporarily unoccupied or contested with both elements moving or maneuvering for a tactical advantage.

In January 2015, Ukrainian elements occupied simple battle positions (SBPs) on multiple levels of an airport building oriented on likely enemy directions of attack. Positions on upper levels provided fields of fire not available at ground level, and also supported observation posts to report on activities in the airport complex or nearby urban areas, and request calls for indirect fires. Kill zones inside and outside of the building focused available direct and indirect fires from SBPs.[107] Ukrainians used expedient materiel to create obstacles in the canalized stairways and corridors of the building to disrupt or block assaults.[108] Control of this multidimensional urban terrain had to consider aspects of surface, super-surface, subsurface, and aerial space in the airport.[109]

Separatist or Russian elements assaulted the ground level of a key building and seized a foothold inside the building. Ukrainian elements were forced to withdraw under pressure to the second floor. With interior stairwells blocked and no effective way to maintain the momentum of the assault with small arms, grenades, and/or flame-thermobaric weapons, separatist and Russian elements maneuvered to the third floor from outside the building. With the second floor isolated, they placed explosives on the floor of the third level and detonated the improvised device to collapse a portion of the second floor ceiling. Speculation exists that special purpose forces or combat engineer expertise may have assisted the assault. Separatist and Russian elements breached and seized the second floor, consolidated their gains in control of this floor, and continued their offensive actions inside and outside of the building. Ukrainian elements on the second floor were either killed or wounded by the concussion and/or spall. Several Ukrainians were captured by the separatists while several Ukrainians were able to withdraw to other buildings of the airport.[110]

This close combat was one brief action in the contested control of the Donetsk airport or major areas near the airport complex that changed several times in subsequent months between the Ukrainian elements and the separatist and Russian forces. Recurring offensive and defensive actions resulted in a non-functional international-size airport, persistent conflict in a complex urban environment, and represented a Russian commitment to a long-term strategy of expansion and influence in the region.

Training Implications

These type of assault tactics are evident in the US Army's Training Circular (TC) 7-100 series for training against threats in complex OEs.[111] In this Donetsk airport combat action, separatists and Russians task-organized security elements and other functional elements for the assault such as a clearing element, assault element, and support element. The *security element* provides local tactical security and prevents the enemy from influencing mission accomplishment. The *clearing element* ensures the action element has a direction of attack clear of obstacles, debris, and rubble that would disrupt the assault element movement and maneuver. The action element, the *assault element* in this instance, maneuvers quickly through a cleared breach and assaults to destroy the enemy and occupy the position. The *support element* provides C2, combat support, and combat service support.[112]

To prepare for the assault, security elements conduct security functions to disrupt and defeat enemy reconnaissance efforts; determine the specific location, disposition, and composition of enemy forces; and in some cases target designated elements of the objective. Assault elements in this vignette could be platoon or smaller sections or squads. Immediate reserves may be as small as a squad or team-size element. Support element tasks would typically be support with direct and/or indirect fires, ad hoc engineer capabilities or specialized augmentation posing as irregular forces, and combat service support focused on ammunition, rations and water resupply, and medical evacuation. C2 was often by personal presence or by unsecure radio or cellular telephone to coordinate offensive actions of–

- Isolate the objective.
- Suppress defensive fires.
- Breach the battle position and neutralize enemy at the breach point.
- Assault into the battle position.
- Seize the battle position and defeat or destroy the enemy.
- Consolidate the immediate area and reorganize.
- Continue the mission task.[113]

Information warfare with continuous audio and video releases by separatist and Russian outlets to regional and global social media aimed at promoting separatist actions as a legitimate claim for independence, as well as presenting images and stories to diminish and defeat Ukrainian resolve to continue combat actions.[114] Russia, even with credible evidence of their direct participation, continued to deny direct involvement in this Ukrainian conflict.

Several functional characteristics apply to this example of an *assault* in the confined space of a building interior in a complex urban environment.[115] Action areas can be analyzed as a disruption zone, a battle zone that could transition to an attack zone for limited offensive actions, and support zone.[116] A disruption zone does not always exist in defense of an SBP, but can provide early warning of an enemy approach and/or delay an enemy assault into friendly forces.[117]

Military and paramilitary elements can create conditions that seize enemy terrain or facility objectives, and/or deny the terrain or facility use by an enemy.[118] Complex urban terrain provides significant advantages as a multidimensional OE to a trained force; however, leaders must plan for the likelihood of decentralized C2 to small-echelon elements, be willing to accept the probability of increased casualties, high consumption of logistics, and methodical time-consuming operations that can require large-echelon forces in the contested area of responsibility.

Note. The SBP figure is a generalization. Military symbols and echelon amplifiers for separatist, Russian, and Ukrainian elements are estimates for the purpose of tactical illustration.

Summary

In all three of these conflicts, Georgia in 2008, Crimea in 2014, and Eastern Ukraine in 2014–2015, the Russians have used conventional military forces in conjunction with political, covert, intelligence, and INFOWAR tactics. Russia uses this approach to make up for a lack of military power, and to ensure they

have an entrenched presence before, during, and after the conflict. This allows the Russians to know the terrain beforehand, identify targets and weaknesses, and plan for primary and alternate objectives. The tactic of leaving behind a residual force of covert agents, insurgents, and local supporters enables the Russians to continue to influence events in that area or country.

Training Implications

All of these operations by the Russians have one key element that US and Allied forces need to take into consideration—the ability of Russian forces to constantly adapt, update, and change tactics to counter enemy actions. The West has consistently underestimated the effect of the collapse of the Soviet Union and more importantly the "Soviet Empire" in 1991 on the Russian psyche and national pride. As noted in this report, the Russians reorganized and reconfigured their Army after the first Chechen War to streamline C2 and allow more independent action by Spetsnaz and regular units. US forces must therefore consider several things when planning and executing training against these tactics.

First, key terrain and objectives must be identified. These will consist mainly of government buildings, airports, and politically important targets. As seen in Ukraine, the Russians or insurgents will quickly seize these using militias and civilian supporters. Units should plan for some or all of these targets to already be under the control of the Opposing Force (OPFOR) when they arrive. Units also need to identify future OPFOR objectives and plan to deny the OPFOR freedom of movement in the vicinity of these areas.

Second, the OPFOR and their supporters will have been active in the area for weeks or months prior to the arrival of US troops. Support for the insurgents by the population must be factored in. US forces must identify if support is widespread (as in Crimea) or if insurgents have simply seized key terrain and made it appear that they have more popular support than they actually have (as in Donbass). The ability to assess the actual level of popular support will enable US forces to decide which facilities, airfields, and villages, etc. to target first, and what kind of force should be used (kinetic vs. non-kinetic). Third, an aggressive and sustained INFOWAR campaign will have been ongoing for months or years prior to US involvement. Units must plan for a counter INFOWAR campaign that identifies the targeted audience and counters the OPFOR INFOWAR effort.

Third, the OPFOR will continue to infiltrate soldiers, fighters, and volunteers into the area. US forces should identify infiltration routes and possible destinations for these fighters. US forces also need to identify all military bases and police stations that have been or can be seized by the OPFOR to assess OPFOR strength due to captured weapons, tanks, IFVs, and APCs. US planners need to anticipate fighting elements that range from squad- to company-size units that will have a variety of equipment and weapons.

Finally, US units must quickly preempt or counter OPFOR actions. The OPFOR does not need to win a "total victory;" they just need to continue the fight and keep the disputed territory that they are operating in in a state of chaos and instability. The longer this situation exists, the more likely outside governments that support the OPFOR will attempt to negotiate a political solution favorable to the OPFOR.

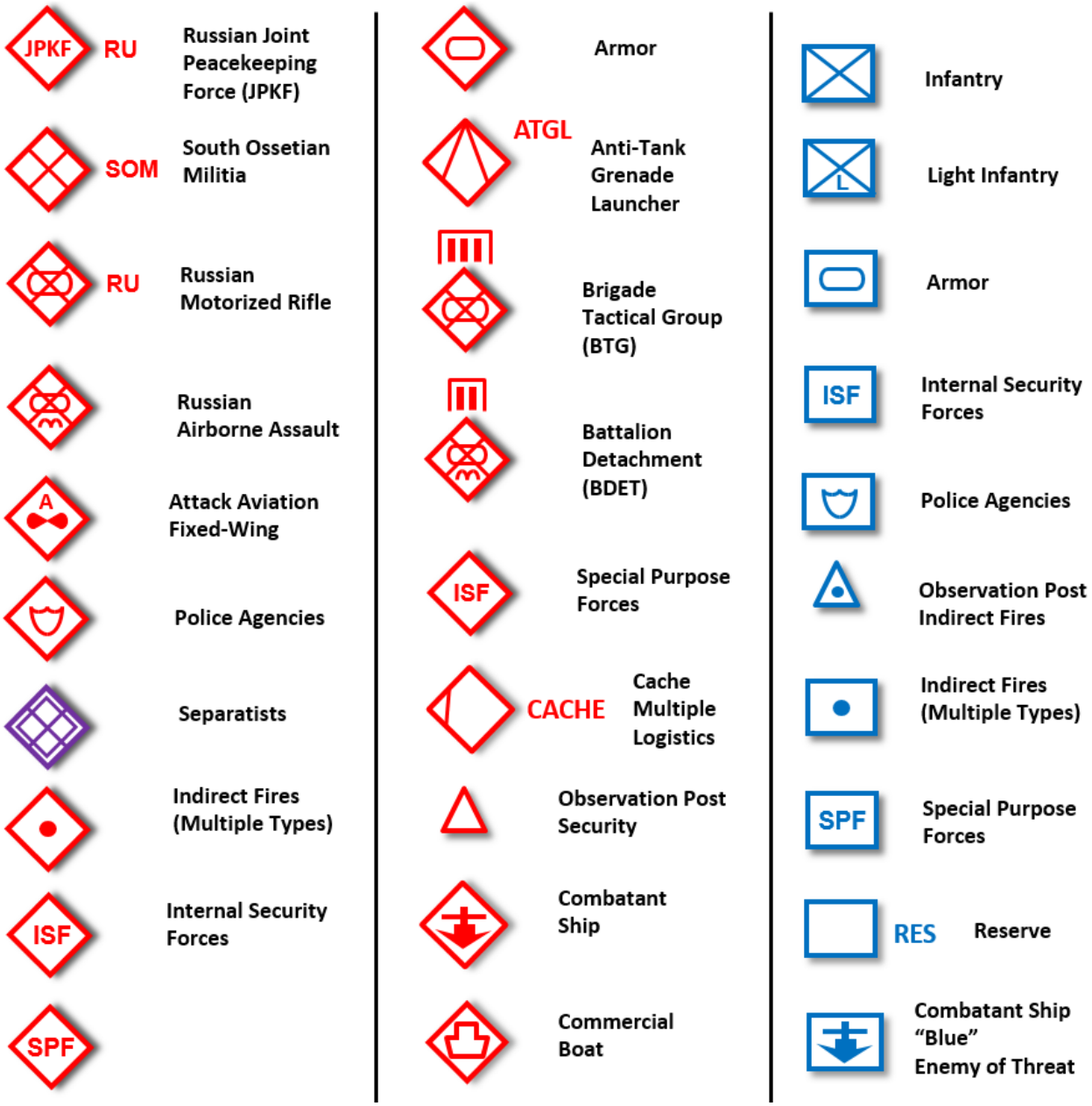
Conditions in DATE and Doctrine

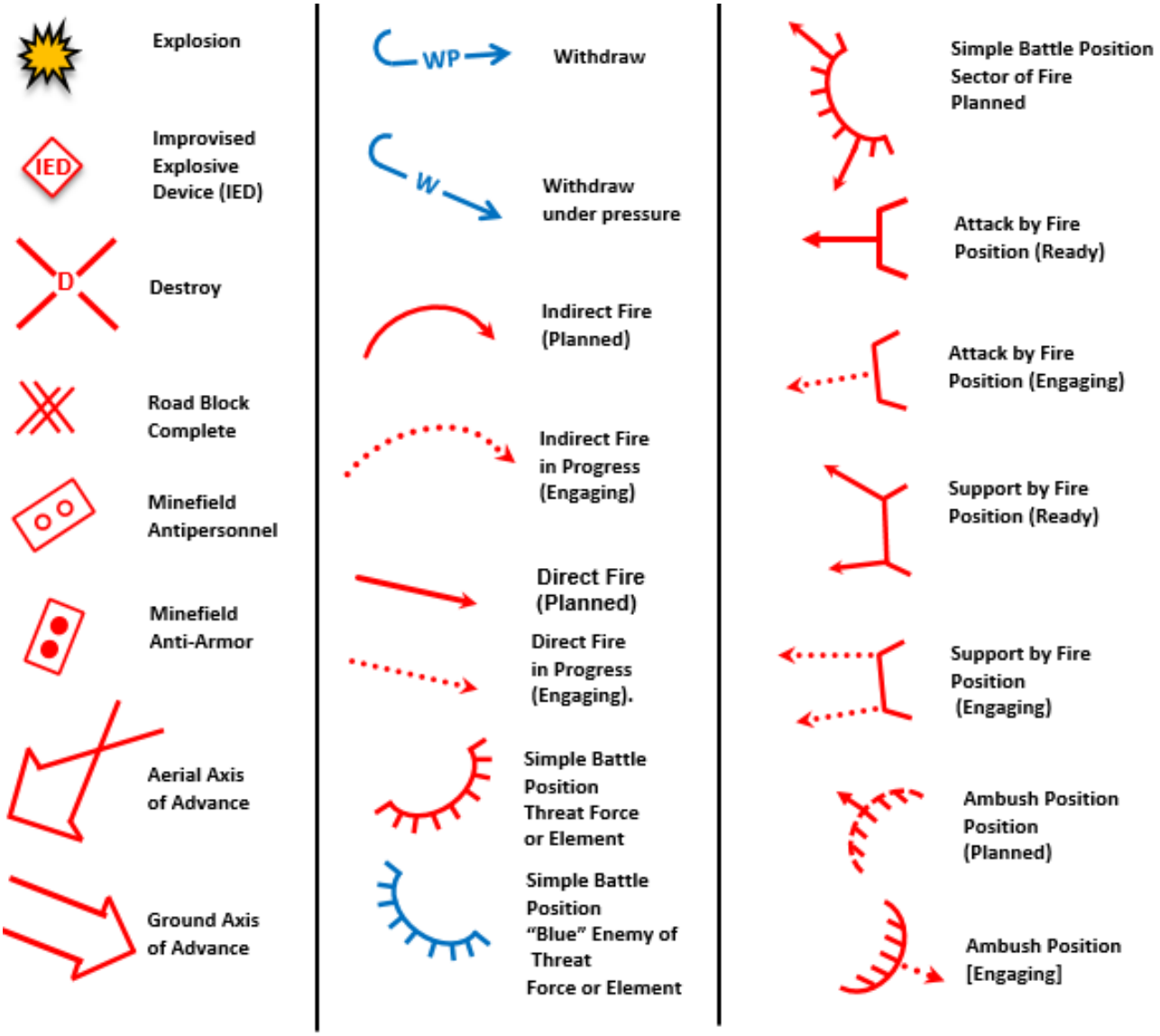
As the DATE and Hybrid Threat Opposing Force are composite models synergized from real-world actors and actions, ISIL's capabilities can be found throughout these products. The following table assists the exercise planner with the locations of key elements in these products of the actions and techniques described in this report.

Real-World Condition	Comparable Condition in DATE	Sections in DATE	Relevant Information in Threat Doctrine	Manual and Page(s)
Insurgents capture an airbase (Donetsk Airport)	South Atropian People's Army attacks Rimzi Airbase	Donovia—Doctrine and Tactics	Offense operations	TC 7-100.2, Opposing Force Tactics, p 3-1
Regular Forces attack a city (Tskhinvali)	Donovian Army attacks a city in Gorgas	Donovia—Doctrine and Tactics	Offense operations	TC 7-100.2, Opposing Force Tactics, p 3-1
Insurgents capture Government Buildings (Donbass)	Coalition of small anti-government groups	Donovia—Doctrine and Tactics, Non State Paramilitary Forces, Insurgent/Guerrilla Forces	Offense operations	TC 7-100, Hybrid Threat, p 3-1
Regular Forces conduct defense of city (Gori)	Donovian Army forces and local Gorgan militias.	Donovia—Doctrine and Tactics, Non State Paramilitary Forces, Insurgent/Guerrilla Forces	Defense operations	TC 7-100.2, Opposing Force Tactics, p 4-1

Appendix A: Military Symbols, Control Measures, and Mission Tasks

This appendix presents the military symbols, mission task symbols, and control measures from a threats perspective. The primary adversary or enemy is presented in the color blue. The color purple and special threat symbol notes a separatist entity.





Note. These symbols are present in this *Threat Tactics Report*. Source documents are DOD Military Standard 2525-D (2014) and Army Reference Doctrinal Publication (ADRP) 1-02 (2015). Some symbols are adaptations for threat training literature in support of the US Army TC 7-100 series.

POCs

Authors

Georgia/Eastern Ukraine
John M. Cantin
913-684-7952 (COMM)
552-7952 (DSN)

Crimea
H. David Pendleton
913-684-7946 (COMM)
552-7946 (DSN)

Tactical Vignettes
Jon Moilanen
913-684-7928 (COMM)
552-7928 (DSN)

TRADOC G-2 Analysis and Control Element (ACE) Threats Integration
803 Harrison Drive, BLDG 467
Fort Leavenworth, KS 66027

Jon Cleaves, ACE-TI Director
Jennifer Dunn, ACE-TI Deputy Director
Jon Moilanen, ACE-TI Operations
Angela Wilkins, ACE-TI Product Integration

Note: **Not all references listed in this publication are readily available to the public; some require a government common access card (CAC) to view.**

References

Army Recognition. "Pro-Russian separatists have seized Ukrainian army armoured personnel carriers and a tank." 16 April 2014.
Associated Press. "Russia Blocks Web Pages Linked to Ukraine Protests." 3 March 2014.
Australian Uranium. "Europe's Dependence on Russian Gas." 2005.
Baldor, Lolita C.. "Russia pulls back most of its forces form Ukrainian border." AP Via PBS. 30 May 2014.
Balmforth, Tom. "A Guide to the Separatists of Eastern Ukraine." Radio Free Europe (RFD). 3 June 2014.
Bartles, Charles K. and Roger N. McDermott. "Russia's Military Operation in Crimea: Road-testing Rapid Reaction Capabilities." Foreign Military Studies Office. Fort Leavenworth KS. August 2014.
BBC. "MH17 crash: Ukraine accuses rebels of destroying evidence." 19 July 2014.
BBC. "Ukraine conflict: Air strikes 'hit Luhansk targets'." 14 July 2014.
BBC. "Ukraine crisis timeline." 5 July 2014.
BBC. "Ukraine profile." 18 July 2014.
BBC. "Ukraine's sharp divisions." 23 April 2014.
Bigg, Claire. "Vostok Battalion, A Powerful New Player in Eastern Ukraine." RFE. 30 May 2014.
Bigg, Claire and Darya Bunyakina. "Ukrainians Answer Call To Enlist Amid Russian Threats." Radio Free Europe. 4 March 2014.
Blair, David. "Seven Ukrainian soldiers killed in ambush." The Telegraph. 13 May 2014.
Brannen, Kate. "France's Ship Sale to Russia Latest Example of Commerce and Policy Clash." Foreign Policy. 23 July 2014.
Business Insider. "% of Gas Coming From Russia." 20 July 2014.
Columbia Management. "Ukraine Crisis – Can The U.S. Make Europe Less Dependent On Russian Gas?" Value Walk. 29 July 2014.
Center for Strategic & International Studies (CSIS). "3 Tanks Cross Into Ukraine from Russia." CSIS. 13 June 2014.
CSIS. "At Least 12, Including a General, Die as Rebels Shoot Down Helicopter." CSIS. 29 May 2014.
CSIS. "Bucking Putin, Separatists to Hold Referenda as Planned." CSIS. 8 May 2014.
CSIS. "Cease-Fire Violated as Rebels Shoot Down a Military Helicopter." CSIS. 24 June 2014.
CSIS. "Corker: "We're Going to Lose Eastern Ukraine'." CSIS. 20 April 2014.
CSIS. "Crimea Votes to Join Russia." CSIS. 16 March 2014.
CSIS. "Crimean Parliament Declares Independence." CSIS. 11 March 2014.
CSIS. "Crimean Parliament Forms New Cabinet." CSIS. 28 February 2014.
CSIS. "Crimean Parliament Votes to Secede From Ukraine, Join Russia." CSIS. 6 March 2014.
CSIS. "De Facto Crimean PM Addresses Tatar Question, Says Plans for Joining Russia Underway." CSIS. 10 March 2014.
CSIS. "EC, Ukraine Propose Interim Agreement to Keep Gas Flowing." CSIS. 13 June 2014.
CSIS. "Eight Months Later, Ukraine Signs Association Agreement." CSIS. 27 June 2014.
CSIS. "Final Referendum Results: 97% Favor Russia." CSIS. 17 March 2014.
CSIS. "GazProm Further Increases Gas Prices for Ukraine." CSIS. 3 April 2014.
CSIS. "GazProm May Suspend Gas Supply to Ukraine." CSIS. 7 March 2014.
CSIS. "'Helpless' Ukraine Reinstates Conscription as Putin Tells Kiev to Back Off." CSIS. 1 May 2014.
CSIS. "Interim Ukrainian PM at United Nations." CSIS. 13 March 2014.
CSIS. "International Reaction to the Referendum in Crimea." 16 March 2014.
CSIS. "Malaysian Airlines Flight Shot Down in Eastern Ukraine." CSIS. 17 July 2014.
CSIS. "Ministry of Economy. Capital Flight Near $70 Billion in 2014 So Far." CSIS. 24 March 2014.
CSIS. "Monitors Still Detained as Captors Seek Prisoner Exchange." CSIS. 26 April 2014.
CSIS. "'New 'Gas War' With Russia?" CSIS. 5 April 2014.
CSIS. "Opposition Vacates Occupied Buildings, Unblocks City Streets." CSIS. 16 February 2014.
CSIS. "PM Medvedev Visits Crimea." CSIS. 31 March 2014.
CSIS. "Poroshenko Wins Ukrainian Presidency, Expected to Avoid Runoff." CSIS. 25 May 2014.
CSIS. "Putin Addresses Federal Assembly on Crimea." CSIS. 18 March 2014.
CSIS. "Putin, Crimean leaders Initial Reunification Treaty." CSIS. 18 March 2014.
CSIS. "Putin Defends Actions in Crimea to Merkel, Cameron." CSIS. 9 March 2014.
CSIS. "Putin Recognizes Crimea as Sovereign State." CSIS. 17 March 2014.
CSIS. "Putin Signs Laws Formally Admitting Crimea to Russian Federation." CSIS. 21 March 2014.
CSIS. "Russia Considering End to START Inspections." CSIS. 8 March 2014.
CSIS. "Russia Cuts Off Gas to Ukraine." CSIS. 16 June 2014.

CSIS. "Russia Eliminates Gas Discount for Ukraine." CSIS. 31 March 2014.
CSIS. "Russia-Ukraine Energy Talks Announced." CSIS. 23 April 2014.
CSIS. "Russia Vetoes U.N. Resolution on Ukraine." CSIS. 15 March 2014.
CSIS. "Russian Forces Occupy Strategic Facilities in Crimea." CSIS. 28 February 2014.
CSIS. "Russian Forces Seize Airbase, Near Total Control of Crimea." CSIS. 22 March 2014.
CSIS. "Russian Forces Seize Gas Distribution Station Outside Crimea." CSIS. 15 March 2014.
CSIS. "Separatists Shoot Down Ukrainian Military Plane." CSIS. 14 June 2014.
CSIS. "Ukraine and EU Sign Association Agreement." CSIS. 21 March 2014.
CSIS. "Ukraine Announces Troop Withdrawal from Crimea, Drops Out of CSIS." CSIS. 19 March 2014.
CSIS. "Ukraine Misses Gas Payment, Fails to Pay Down GazProm Debt." CSIS. 8 April 2014.
CSIS. "Ukraine, NATO, U.S. Concerned About Further Russian Aggression." CSIS. 23 March 2014.
CSIS. "Ukraine Orders Troop Withdrawal From Crimea." CSIS. 24 March 2014.
CSIS. "Ukraine Reacts to Referendum Vote." CSIS. 16 March 2014.
CSIS. "Ukraine Rejects Russian Gas Discount Offer." CSIS. 11 June 2014.
CSIS. "Ukrainian Government in Kiev, Russia React to Crimea Vote." CSIS. 6 March 2014.
CSIS. "Ukrainian Navy HQ in Crimea Overtaken, Rear Admiral Detained." CSIS. 19 March 2014.
CSIS. "Ukrainian Transport Plane Shot Down, Kiev Blames Moscow." CSIS. 14 July 2014.
CSIS. "UN General Assembly: Crimea Referendum Invalid." CSIS. 27 March 2014.
CSIS. "UN Sends Human Rights Monitors to Assess Situation in Ukraine." CSIS. 14 March 2014.
CSIS. "Yanukovych Calls for Referenda Throughout Ukraine." CSIS. 28 March 2014.
CSIS. "Yanukovych Impeached, Oleksander Turchynov in as Interim President." CSIS. 23 February 2014.
CSIS. "Yanukovych, Opposition Sign Settlement Agreement." CSIS. 21 February 2014.
CSIS. "Yanukovych Reportedly Flees Kiev, Tensions Remain." CSIS. 21 February 2014.
CSIS: "Yatsenyuk: Conflict Shifting to Military Stage." CSIS. 18 March 2014.
CSIS. "Yatsenyuk: Ukraine Ready for Austerity." CSIS. 4 April 2014.
China Daily. "Ukraine to downsize armed forces by 8,000 in 2012." 20 September 2011.
Chivers, C.J. and David M. Herszenhorn. "In Crimea, Russia Showcases a Rebooted Army." The New York Times. 2 April 2014.
Clements, Matthew. "Russian military intervention in Ukraine dependent on significant escalation of violence in Crimea." Jane's Intelligence Weekly. 27 February 2014.
CTV News. "Clashes escalate after Putin says Russia will 'respect Ukraine vote'." 13 May 2014.
Department of the Army. "TC 7-100.2, Opposing Force Tactics." December 2011.
Daily Sabah. "Around 400 US-Led Mercenaries Deployed to Ukraine." 12 May 2014.
Daily Sabah. "Ukraine Separatists Down Army Helicopter, 14 Killed." 30 May 2014.
De Larrinaga, Nicholas. "Two Ukrainian Mi-24s shot down by MANPADS." Jane's Defence Weekly. 7 May 2014.
De Larrinaga, Nicholas. "Ukraine returns combat aircraft to service." Jane's Defence Weekly. 5 June 2014.
De Larrinaga, Nicholas. "Ukrainian Mi-8 shot down near Slavyansk." Jane's Defence Weekly. 29 May 2014.
Drachev, Viktor. "Ukraine Joins Russia, Belarus in Military Exercises." Stratfor. 19 September 2011.
Erlanger, Steven and Andrew E. Kramer. "Ukraine Finds Its Forces Are Ill Equipped to Take Crimea Back From Russia." The New York Times. 1 March 2014.
Evans, Stephen. "Germany and Russia's contradictory relationship." BBC. 22 July 2014.
Felgenhauer, Pavel. "Jubilant Medvedev praises Yanukovych and Threatens Lukashenka." Jamestown Foundation's Eurasia Daily Monitor. 22 April 2010.
Felstead, Peter and Georg Mader. "UPDATE: OSCE evidence lifts lid on 'little green men' in Crimea." Jane's Defence Weekly. 14 March 2014.
Friedman, George. "Borderlands: The New Strategic Landscape." Geopolitical Weekly. STRATFOR. 6 May 2014.
Global Security. "Sevastopol." 2013.
Global Security. "Slavutych Command Ship." Undated.
Gutterman, Steve. "Russia blocks internet sites of Putin critics."
Herszenhorn, David M. "Crimean Premier Says Ukrainian Military Units Have Started to Surrender." The New York Times. 4 March 2014.
Herszenhorn, David M. and Andrew E. Kramer. "Ukraine Plans to Withdraw Troops From Russia-Occupied Crimea." The New York Times. 19 March 2014.

Higgins, Andrew, Michael R. Gordon, and Andrew E. Kramer. "Photos Link Masked Men in East Ukraine to Russia." New York Times. 20 April 2014.
Jane's. "Russia pressures Ukraine over NATO membership." 5 June 2008.
Jane's Country Risk Daily Report. "Russia accuses Ukraine of involvement in Georgia conflict." 25 August 2009.
Jane's Country Risk Daily Report. "Russia unlikely to repeat its absorption of Crimea in Moldova despite Transdniestria's wishes." 20 March 2014.
Jane's Country Risk Daily Report. "Ultranationalist clash with police in southern Ukraine." 4 July 2011.
Jane's Intelligence Review. "Crimea Seeks Independence From Ukraine." 1 February 1994.
Jane's Intelligence Review. "Eastern rising – Ukraine struggles to maintain territorial integrity." 17 April 2014.
Jane's Intelligence Review. "Paramilitary Groups in Ukraine." 1 March 2014.
Jane's Intelligence Review. "Pipe dreams – Europe wrestles with Russian energy dependency." 29 April 2014.
Jane's Intelligence Weekly. "Crimea adopts 'declaration of independence' resolving legal uncertainty over its territorial integration into Russia." 12 March 2014.
Jane's Intelligence Weekly. "Eastern Ukraine's deteriorating security situation unlikely to be contained amid threat of Russian military intervention." 25 April 2014.
Jane's Intelligence Weekly. "Peaceful transition to Ukrainian presidential likely." 24 February 2014.
Jane's Intelligence Weekly. "Poroshenko likely to become Ukrainian president, but challenge to territorial integrity will persist." 22 May 2014.
Jane's Intelligence Weekly. "Risk of Russian military intervention in eastern Ukraine will rise if separatists there suffer mass casualties." 2 May 2014.
Jane's Intelligence Weekly. "Russian troop movements suggest contingency plan for intervention in eastern Ukraine as protesters' deaths raise unrest risks." 14 March 2014.
Jane's Intelligence Weekly. "Separatist groups in eastern Ukraine unlikely to agree to ceasefire despite new president's calls for conciliation." 9 June 2014.
Jane's Intelligence Weekly. "Ukraine announces 'military operation' against pro-Russian gunmen in east, raising threat of civil war and Russian intervention." 14 April 2014.
Jane's Intelligence Weekly. "Ukraine's escalating unrest likely to fuel protests, delay projects, and reduce energy exports in Central Asia." 15 April 2014.
Jane's Sentinel Security Assessment. "Ukraine—Security." 8 May 2014.
Jane's Sentinel Security Assessment. "Ukraine >Security and Foreign Forces." 8 May 2014.
Johnson, Reuben F. "Ukraine bars defence exports to Russia." Jane's Defence Weekly. 1 April 2014.
Johnson, Reuben F. "War between Russia and Ukraine a '50-50 probability', say intel officers." Jane's Defence Weekly. 14 March 2014.
Jones, Bruce. "Putin outlines future military developments in Crimea and Arctic." Jane's Defence Weekly. 2 April 2014.
Kendall, Bridget. "Ukraine maps chart Crimea's troubled past." BBC. 13 March 2014.
Korduban, Pavel. "Gas in Exchange for Naval Base: a Boon to Ukraine's Weak Economy." Jamestown Foundation's Eurasia Daily Monitor. 28 April 2010.
Kovalenko, Nataliya and Oleksiy Arunyan. "Ukraine Struggles To Find Strategy For Getting Back Crimea." RFE. 2 August 2014.
Kucera, Joshua. "Russia indicates Black Sea Fleet expansion." Jane's Defence Weekly. 7 May 2014.
Latin American Herald Tribune. "Ukraine Puts Army on Combat Alert After Russian Invasion." 1 March 2014.
Marcus, Jonathan. "Russia and Ukraine's mystery tanks." BBC. 25 July 2014.
Military Periscope. "Air Force – Ukraine." Nations/Alliances/Geographic Regions: Eurasian Republics. 1 April 2013.
Military Periscope. "Air Force – Russia." Nations/Alliances/Geographic Regions: Eurasian Republics. 1 October 2011.
Military Periscope. "Armed Forces Structure – Ukraine." Nations/Alliances/Geographic Regions: Eurasian Republics. 1 April 2013.
Military Periscope. "Armed Forces Structure – Russia." Nations/Alliances/Geographic Regions: Eurasian Republics. 1 October 2011.
Military Periscope. "Army – Ukraine." Nations/Alliances/Geographic Regions: Eurasian Republics. 1 April 2013.
Military Periscope. "Army – Russia." Nations/Alliances/Geographic Regions: Eurasian Republics. 1 October 2011.
Military Periscope. "Navy – Ukraine." Nations/Alliances/Geographic Regions: Eurasian Republics. 1 April 2013.
Military Periscope. "Navy – Russia." Nations/Alliances/Geographic Regions: Eurasian Republics. 1 October 2011.
Military Periscope. "Strategic Forces – Russia." Nations/Alliances/Geographic Regions: Eurasian Republics. 1 October 2011.

Miller, Christopher J. "Rebel ambush near Kramatorsk kills seven Ukrainian paratroopers; one rebel dead (UPDATED)." Kiev Post. 13 May 2014.
Moody's Analytics. "How Much Does Europe Depend on Russian Gas?" 3 April 2014.
Murphy, Dennis. "Russians open cyber front in Crimea." Jane's Defence Weekly. 4 March 2014.
Nurkin, Tate. "Analysis: three takeaways form Russia's intervention in Ukraine." Jane's Defence Weekly. 7 March 2014.
Pagano, Margareta. "Land for gas: Merkel and Putin discussed secret deal could end Ukraine crisis." The Independent. 31 July 2014.
Peralta, Eyder. "6 Ukrainian Soldiers Killed in Ambush." National Public Radio. 13 May 2014.
Pomerantsev, Peter. "How Putin Is Reinventing Warfare." Foreign Policy. 5 May 2014.
Queston More. "Russia's 25,000-troop allowance & other facts you may not know about Crimea." 4 March 2014 and updated 6 March 2014.
Radio Free Europe (RFE). "Crimean Tatars Staging 'Self-Preservation' Patrols." 28 March 2014.
RFE. "Interview: I Was a Separatist Fighter in Ukraine." 13 July 2014.
RFE. "NATO To Finalize Military Aid Package For Ukraine." 3 June 2014.
RFE. "Ukraine Mourns 49 Troops Killed When Rebels Down Army Plane." 14 June 2014.
RFE. "Ukrainian Forces Capture Kramatorsk Airport." 15 April 2014.
RFE. "Ukrainian Parliament Rejects PM's Resignation." 31 July 2014.
Recknagel, Charles. "Complex Ties: Russia's Armed Forces Depend on Ukraine's Military Industry." Radio Free Europe. 28 March 2014.
Recknagel, Charles and Merhat Sharipzhan. "Army In need. Volunteers Try to Get Supplies to Ukraine's Forces." RFE. 6 June 2014.
Ripley, Tim. "Analysis: Crimea intervention – The increasing sophistication of Russia's military insurgence." Jane's Defence Weekly. 26 March 2014.
Ripley, Tim. "Ukrainian Navy cut down by Russian move into Crimea." Jane's Defence Weekly. 27 March 2014.
Ripley, Tim. "Ukrainian troops face demonstrations as they near Russian border." Jane's Defence Weekly. 24 March 2014.
Ripley, Tim and Bruce Jones. "Ukraine moves armour to border areas." Jane's Defence Weekly. 17 March 2014.
Savachenko, Oleksandr. "After shaky start, Ukraine turns eastern offensive around." AFP Via Yahoo News. 29 July 2014.
Schofield, Matthew. "Rumors of American mercenaries in Ukraine spread to Germany." McClatch Foreign Staff Via Stars & Stripes. 15 May 2014.
Schulte, Sebastian. "Germany puts Rheinmetall training deal with Russia on hold." Jane's Defence Weekly. 20 March 2014.
Sharogradsky, Andrewi. "Farewell 'Slavutych:' Firsthand Account of Ukrainian Warship's Takeover." Radio Free Europe. 31 March 2014.
Smith, Matthew. "Rostec CEO added to US sanctions list." Jane's Defence Weekly. 28 April 2014.
Socor, Vladimir. "Russian Black Sea Fleet Strengthens Presence in Ukraine." Jamestown Foundation's Eurasia Daily Monitor. 21 January 2011.
Synovitz, Ron. "Russian Forces in Crimea. Who Are They And Where Did They Come From?" Radio Free Europe, 4 March 2014.
The Telegraph, "Europe Scrambles To Break Gas Dependence on Russia." 2014.
Tigner, Brooks. "EU rejects Crimea referendum." Jane's Defence Weekly. 17 March 2014.
Tigner, Brooks. "G7 holding on further Russian sanctions." Jane's Defence Weekly. 5 June 2014.
Tigner, Brooks. "NATO suspends co-operation with Russia." Jane's Defence Weekly. 2 April 2014.
Tigner, Brooks. "US places sanctions on Russian politicians." Jane's Defence Weekly. 17 March 2014.
Ukraine.com. "History – The Past that Shaped Present Day Ukraine." Undated.
Ukraine Travel Advisor. "Brief Ukraine History." Undated.
Ukrainian Cultural Center of Syracuse. "A Brief History of the Ukraine." 2006.
USA Today. "Russian troops looming over all in Crimea." 5 March 2014.
Vasovic, Aleksandar. "Ukrainian marine in Crimea seek honorable retreat." Reuters Via Yahoo! News. 23 March 2014.
Weisgerber, Marcus. "PICTURES: Russian Black Sea Fleet Commander Boards Ukrainian Navy Ship." Intercepts, 20 March 2014.
Whitmore, Brian. "An Old Game With New Rules in Russia's Backyard." Radio Free Europe. 27 September 2013.
Zamakis, Petro. "Trawler Cherkasy Refused to Surrender And Took Defensive Positions." Ukraine Investigation. 21 March 2014.

Endnotes

[1] Nadia Shadlow, "The Problem with Hybrid Warfare," War on The Rocks, 2 April 2015.
[2] Les Grau, "The Past, Present, and Future of Russian Military Operations," 6 August 2014.
[3] Various Authors, Project 1704 U.S. Army War College, "Analysis of Russian Strategy in Eastern Europe, an Appropriate U.S. Response, and the Implications for U.S. Land power," 25 March 2015.
[4] Report. Volume II" (PDF), IIFFMCG, September 2009.
[5] Dancho Danchev, "Coordinated Russia vs Georgia cyber-attack in progress", ZD Net, August 11th 2008.
[6] Various Authors, "The Russo-Georgian War (2008): The Role of the Cyber Attacks in the Conflict", AFCEA International, 24 May 2012.
[7] Zack Beauchamp, "What We Can Learn About Ukraine From Russia's Last Invasion," ThinkProgress, 6 March 2014.
[8] Mikhail Barabanov (12 September 2008), "The August War between Russia and Georgia", Moscow Defense Brief (Centre for Analysis of Strategies and Technologies) **3** (13). Archived from the original on 15 September 2008.
[9] Ann Barnard. "Russians push past separatist area to assault central Georgia," 11 August 2008.
[10] Der Spiegeil, "Did Saakashvili Lie? The West Begins to Doubt Georgian Leader", 15 September 2008.
[11] Mikhail Barabanov, "The August War between Russia and Georgia," Moscow Defence Brief (Centre for Analysis of Strategies and Technologies) **3** (13), Archived from the original on 4 April 2009.
[12] Ruslan Pukhov (Ed.). The Tanks of August, Moscow: Centre for Analysis of Strategies and Technologies, 2010, See www.cast.ru/files/The_Tanks_of_August_sm_eng.pdf.
[13] LaBarre, Frederic. "The Battle of Tskhinvali Revisited." Small Wars Journal. 8 October 2014.
[14] Headquarters, Department of the Army, Training Circular 7-100.2, Opposing Force Tactics, TRADOC G-2 Analysis and Control Element (ACE) Threats Integration, 9 December 2011, para. 4-107; 4-109—4-144.
[15] LaBarre, Frederic. "The Battle of Tskhinvali Revisited." Small Wars Journal. 8 October 2014.
[16] Headquarters, Department of the Army, Training Circular 7-100.2, Opposing Force Tactics, TRADOC G-2 Analysis and Control Element (ACE) Threats Integration, 9 December 2011, para. 3-105; 3-174—3-175.
[17] Headquarters, Department of the Army, Training Circular 7-100.2, Opposing Force Tactics, TRADOC G-2 Analysis and Control Element (ACE) Threats Integration, 9 December 2011, para. 3-54; 3-57.
[18] Headquarters, Department of the Army, Training Circular 7-100.2, Opposing Force Tactics, TRADOC G-2 Analysis and Control Element (ACE) Threats Integration, 9 December 2011, para. 3-177—3-179.
[19] Headquarters, Department of the Army, Training Circular 7-100.2, Opposing Force Tactics, TRADOC G-2 Analysis and Control Element (ACE) Threats Integration, 9 December 2011, para. 8-104; 10-42—10-45.
[20] Headquarters, Department of the Army, Training Circular 7-100.2, Opposing Force Tactics, TRADOC G-2 Analysis and Control Element (ACE) Threats Integration, 9 December 2011, para. 4-111—4-112; 10-82—10-87.
[21] Ariel Cohen and Robert Hamilton, The Russian Military and the Georgia War: Lessons and Implications, Strategic Studies Institute, US Army War College: Carlisle, PA, 2011, pp. 23-25.
[22] Frederic LaBarre. "The Battle of Tskhinvali Revisited." Small Wars Journal. 8 October 2014.
[23] Ruslan Pukhov (Ed.). The Tanks of August. Moscow: Centre for Analysis of Strategies and Technologies. 2010. See www.cast.ru/files/The_Tanks_of_August_sm_eng.pdf
[24] Headquarters, Department of the Army, Training Circular 7-100.2, Opposing Force Tactics, TRADOC G-2 Analysis and Control Element (ACE) Threats Integration, 9 December 2011, para. 4-85—4-87.
[25] Headquarters, Department of the Army, Training Circular 7-100.2, Opposing Force Tactics, TRADOC G-2 Analysis and Control Element (ACE) Threats Integration, 9 December 2011, para. 3-61; 3-74—3-89; 4-85.
[26] Department of the Army. Hybrid Threat. Training Circular 7-100. 26 November 2010. para. 3-22–3-22.
[27] Frederic LaBarre, "The Battle of Tskhinvali Revisited," Small Wars Journal, 8 October 2014.
[28] Ariel Cohen and Robert Hamilton, The Russian Military and the Georgia War: Lessons and Implications, Strategic Studies Institute, US Army War College: Carlisle, PA, 2011. pp. 9, 11, 14, 20, 25-26, and 29-30.
[29] Ruslan Pukhov (Ed.), (2010), The Tanks of August. Centre for Analysis of Strategies and Technologies: Moscow. See www.cast.ru/files/The_Tanks_of_August_sm_eng.pdf
[30] Frederic LaBarre, "The Battle of Tskhinvali Revisited," Small Wars Journal, 8 October 2014.
[31] Ariel Cohen and Robert Hamilton, The Russian Military and the Georgia War: Lessons and Implications, Strategic Studies

Institute, US Army War College: Carlisle, PA, 2011, p. 12.

[32] DAS. See Headquarters, Department of the Army, Training Circular 7-100.2, Opposing Force Tactics, TRADOC G-2 Analysis and Control Element (ACE) Threats Integration, 9 December 2011, para. 10-82—10-84.

[33] Ruslan Pukhov (Ed.). (2010), The Tanks of August. Centre for Analysis of Strategies and Technologies: Moscow, See www.cast.ru/files/The_Tanks_of_August_sm_eng.pdf pp. 60 and 62.

[34] Ariel Cohen and Robert Hamilton. The Russian Military and the Georgia War: Lessons and Implications. Strategic Studies Institute, US Army War College: Carlisle, PA. 2011. p. 37-38.

[35] BTG. See Headquarters, Department of the Army, Training Circular 7-100.2, Opposing Force Tactics, TRADOC G-2 Analysis and Control Element (ACE) Threats Integration, 9 December 2011, para. 2-19—2-20.

[36] BDET. See Headquarters, Department of the Army, Training Circular 7-100.2, Opposing Force Tactics, TRADOC G-2 Analysis and Control Element (ACE) Threats Integration, 9 December 2011, para. 2-25.

[37] Ruslan Pukhov (Ed.), The Tanks of August. Centre for Analysis of Strategies and Technologies: Moscow. See www.cast.ru/files/The_Tanks_of_August_sm_eng.pdf pp. 70. 2010.

[38] Ruslan Pukhov (Ed.), The Tanks of August. Centre for Analysis of Strategies and Technologies: Moscow. See www.cast.ru/files/The_Tanks_of_August_sm_eng.pdf pp. 70-71. 2010.

[39]Ariel Cohen and Robert Hamilton, The Russian Military and the Georgia War: Lessons and Implications, Strategic Studies Institute, US Army War College: Carlisle, PA. 2011. pp. 44. See also, "Russian pulls back from igoeti's center."

[40] Department of the Army. Opposing Force Tactics. Training Circular 7-100.2. 9 December 2011. para. 3-64—3-66.

[41] Department of the Army. Opposing Force Tactics. Training Circular 7-100.2. 9 December 2011. para. 3-44; 3-68—3-74.

[42] Ariel Cohen and Robert Hamilton. The Russian Military and the Georgia War: Lessons and Implications. Strategic Studies Institute, US Army War College: Carlisle, PA. 2011. pp. 47-48.

[43] Ukrainian Cultural Center of Syracuse, "A Brief History of the Ukraine," 2006; BBC. "Ukraine crisis timeline," 5 July 2014; BBC. "Ukraine profile," 18 July 2014; Ukraine.com, "History – The Past that Shaped Present Day Ukraine," Undated; Ukraine Travel Advisor, "Brief Ukraine History," Undated.

[44] Ukrainian Cultural Center of Syracuse, "A Brief History of the Ukraine," 2006; BBC. "Ukraine crisis timeline," 5 July 2014; BBC. "Ukraine profile," 18 July 2014; Ukraine.com, "History – The Past that Shaped Present Day Ukraine," Undated; Ukraine Travel Advisor, "Brief Ukraine History," Undated; CSIS, "Russia Eliminates Gas Discount for Ukraine," 31 March 2014; CSIS, "GazProm Further Increases Gas Prices for Ukraine," 3 April 2014; CISIS, "New 'Gas War' With Russia?," 5 April 2014; "CSIS, "Ukraine Misses Gas Payment, Fails to Pay Down GazProm Debt," 8 April 2014; CSIS, "Russia-Ukraine Energy Talks Announced," 23 April 2014; CSIS, "Ukraine Rejects Russian Gas Discount Offer," 11 June 2014; CSIS, "Russia Cuts off Gas to Ukraine," 16 June 2014; Stephen Evans, "Germany and Russia's contradictory relationship," BBC, 22 July 2014.

[45] Ukrainian Cultural Center of Syracuse, "A Brief History of the Ukraine," 2006; BBC. "Ukraine crisis timeline," 5 July 2014; BBC. "Ukraine profile," 18 July 2014; Ukraine.com, "History – The Past that Shaped Present Day Ukraine," Undated; Ukraine Travel Advisor, "Brief Ukraine History," Undated; Global Security, "Sevastopol," 2013; QuestionMore. "Russia's 25,000-troop allowance & other facts you may not know about Crimea," 4 March 2014.

[46] Question More. "Russia's 25,000-troop allowance & other facts you may not know about Crimea," 6 March 2014; Tim Ripley, "Analysis: Crimea intervention – The increasing sophistication of Russia's military insurgence," Jane's Defence Weekly, 26 March 2014; Charles K. Bartles and Roger N. McDermott, "Russia's Military Operation in Crimea: Road-testing Rapid Reaction Capabilities," Foreign Military Studies Office, Fort Leavenworth KS, August 2014. Military Periscope, "Navy – Russia," Nations/Alliances/Geographic Regions: Eurasian Republics, 1 October 2011.

[47] CSIS. "Ukraine Announces Troop Withdrawal from Crimea, Drops Out of CSIS," CSIS, 19 March 2014; Aleksandar Vasovic, "Ukrainian marines in Crimea seek honorable retreat," Reuters via Yahoo! News, 23 March 2014.

[48] Military Periscope, "Armed Forces Structure – Ukraine," Nations/Alliances/Geographic Regions: Eurasian Republics, 1 April 2013; Military Periscope, "Army – Ukraine," Nations/Alliances/Geographic Regions: Eurasian Republics, 1 April 2013.

[49]Military Periscope, "Armed Forces Structure – Ukraine," Nations/Alliances/Geographic Regions: Eurasian Republics, 1 April 2013; Military Periscope, "Air Force – Ukraine," Nations/Alliances/Geographic Regions: Eurasian Republics, 1 April 2013.

[50] Military Periscope, "Armed Forces Structure – Ukraine," Nations/Alliances/Geographic Regions: Eurasian Republics, 1 April 2013; Military Periscope, "Navy – Russia," Nations/Alliances/Geographic Regions: Eurasian Republics, 1 October 2011.

[51] Quote from Jane's Intelligence Review, "Crimea Seeks Independence From Ukraine," 1 February 1994.

[52] Jane's Intelligence Review, "Crimea Seeks Independence From Ukraine," 1 February 1994; Queston More, "Russia's 25,000-troop allowance & other facts you may not know about Crimea," 4 March 2014 and updated 6 March 2014.

[53] Matthew Clements, "Russian military intervention in Ukraine dependent on significant escalation of violence in Crimea," Jane's Intelligence Weekly, 27 February 2014.
[54] CSIS, "Russian Forces Occupy Strategic Facilities in Crimea," CSIS, 28 February 2014; Tim Ripley, "Analysis: Crimea intervention – The increasing sophistication of Russia's military insurgence," Jane's Defence Weekly, 26 March 2014.
[55] CSIS, "Russian Forces Occupy Strategic Facilities in Crimea," CSIS, 28 February 2014.
[56] Euromaidan PR, "Russian Occupiers Sunk BOD Ochakov to Block Exit for Ukrainian Ships," YouTube Video Screen Shot, 6 March 2014; Latin American Herald Tribune. "Ukraine Puts Army on Combat Alert After Russian Invasion," 1 March 2014.
[57] CSIS, "Crimean Parliament Votes to Secede From Ukraine, Join Russia," CSIS, 6 March 2014.
[58] BBC, "Ukraine crisis timeline," 5 July 2014; CSIS, "Russia Considering End to START Inspections," CSIS, 8 March 2014.
[59] BBC, "Ukraine crisis timeline," 5 July 2014.
[60] Steve Gutterman, "Russia blocks internet sites of Putin critics," Reuters, 13 March 2014.
[61] CSIS, "Russian Forces Seize Gas Distribution Station Outside Crimea," CSIS, 15 March 2014.
[62] BBC, "Ukraine crisis timeline," 5 July 2014; CSIS, "Yatsenyuk: Conflict Shifting to Military Stage," CSIS, 18 March 2014: Herszenhorn, David M. and Andrew E. Kramer, "Ukraine Plans to Withdraw Troops From Russia-Occupied Crimea," The New York Times, 19 March 2014.
[63] CSIS, "Ukrainian Navy HQ in Crimea Overtaken, Rear Admiral Detained," CSIS, 19 March 2014.
[64] CSIS, "Russian Forces Seize Airbase, Near Total Control of Crimea," CSIS, 22 March 2014.
[65] Petro Zamakis, "Trawler Cherkasy Refused to Surrender And Took Defensive Positions," Ukraine Investigation, 21 March 2014.
[66] CSIS, "Russian Forces Seize Airbase, Near Total Control of Crimea," CSIS, 22 March 2014.
[67] BBC, "Ukraine crisis timeline," 5 July 2014; Aleksandar Vasovic, "Ukrainian marine in Crimea seek honorable retreat," Reuters Via Yahoo! News, 23 March 2014.
[68] BBC, "Ukraine crisis timeline," 5 July 2014; Aleksandar Vasovic, "Ukrainian marine in Crimea seek honorable retreat," Reuters Via Yahoo! News, 23 March 2014; Tim Ripley, "Analysis: Crimea intervention – The increasing sophistication of Russia's military insurgence," Jane's Defence Weekly, 26 March 2014.
[69] Global Security, "Slavutych Command Ship," Undated.
[70] Global Security, "Slavutych Command Ship," Undated; Marcus Weisgarber, "PICTURES: Russian Black Sea Fleet Commander Boards Ukrainian Navy Ship," Intercepts, 20 March 2014; Andrei Sharogradsky, "Farewell 'Slavutych:' Firsthand Account of Ukrainian Warship's Takeover," 31 March 2014; Tim Ripley, "Ukrainian Navy cut down by Russian move into Crimea," Jane's Defence Weekly, 27 March 2014.
[71] Global Security, "Slavutych Command Ship," Undated; Marcus Weisgarber, "PICTURES: Russian Black Sea Fleet Commander Boards Ukrainian Navy Ship," Intercepts, 20 March 2014; Andrei Sharogradsky, "Farewell 'Slavutych:' Firsthand Account of Ukrainian Warship's Takeover," 31 March 2014; Tim Ripley, "Ukrainian Navy cut down by Russian move into Crimea," Jane's Defence Weekly, 27 March 2014.
[72] Global Security, "Slavutych Command Ship," Undated; Marcus Weisgarber, "PICTURES: Russian Black Sea Fleet Commander Boards Ukrainian Navy Ship," Intercepts, 20 March 2014; Andrei Sharogradsky, "Farewell 'Slavutych:' Firsthand Account of Ukrainian Warship's Takeover," 31 March 2014; Tim Ripley, "Ukrainian Navy cut down by Russian move into Crimea," Jane's Defence Weekly, 27 March 2014.
[73] Global Security, "Slavutych Command Ship," Undated; Marcus Weisgarber, "PICTURES: Russian Black Sea Fleet Commander Boards Ukrainian Navy Ship," Intercepts, 20 March 2014; Andrei Sharogradsky, "Farewell 'Slavutych:' Firsthand Account of Ukrainian Warship's Takeover," 31 March 2014; Tim Ripley, "Ukrainian Navy cut down by Russian move into Crimea," Jane's Defence Weekly, 27 March 2014.
[74] Department of the Army, "TC 7-100.2, Opposing Force Tactics," December 2011. See paragraph 3-7 for a definition of an attack to gain control of key equipment; paragraph 3-44 for raiding element activities; paragraph 3-174 for the definition of a raid; paragraph 3-177 for the raiding element definition, and paragraph 3-176 for the three elements used in an attack.
[75] Capital, "Russia withdrew its troops from Kherson oblast of Ukraine," 11 January 2015.
[76] Financial Times, Paramilitaries seize Donetsk rebels' HQ," 29 May 2014.
[77] NBC News, "Meet the Russian Orthodox Army, Ukrainian Separatists' Shock Troops," 16 May 2014.
[78] Voiceofrussia.com, "South-East Army" urges Kiev's security forces to leave territory of Lugansk People's Republic," Archived from the original on 17 June 2014. Retrieved 28 July 2014.
[79] Gabriela Baczynska, "More foreign fighters break cover among Ukraine separatists," Reuters, 1 June 2014.

[80] Voiceofrussia.com, "Russian journalists come fire from Ukrainian troops in Lugansk," 11 July 2014. Archived from the original on 25 July 2014. Retrieved 28 July 2014.
[81] Yuras Karmanau, "Ukraine rebels face drop in morale: 'What's the point of fighting?'" Toronto Star, 10 July 2014.
[82] Reuters. "Miners rally in favor of separatists in eastern Ukraine". 28 May 2014. Retrieved 29 April 2014
[83] BBC News, "Ukraine: Pro-Russians storm offices in Donetsk, Luhansk, Kharkiv", 6 April 2014. RT, "Pro-Russian protesters seize govt buildings in Ukraine's Donetsk, Lugansk and Kharkov". 7 April 2014
[84] BBC News, Ukraine crisis: Protesters declare Donetsk 'republic', 7 April 2014.
[85] Nicolas Miletitch and Dmitry Zaks, "Ukraine pushes tanks toward flashpoint separatist city," The Daily Star (Lebanon), Agence France-Presse, 15 April 2014.
[86] Dallas News AP "Pro-Russian insurgents seize armored vehicles in Ukraine". 16 April 2014. Retrieved 17 April 2014.
[87] Victor Reznikov, "Whistle-Blowing Russian 'Troll' Gets Her Day In Court",RFE/RL Russian Service, 1 [87] Department of the Army, "TC 7-100.2, Opposing Force Tactics," December 2011. See paragraph 3-7 for a definition of an attack to gain control of key equipment; paragraph 3-44 for raiding element activities; paragraph 3-174 for the definition of a raid; paragraph 3-177 for the raiding element definition, and paragraph 3-176 for the three elements used in an attack.
[88] Alexander Warketin and Deutsche Welle, "Disowned and forgotten: Russian soldiers in Ukraine," 29 August 2014.
[89] Jonathan Marcus, "Ukraine crisis: T-72 tank shoots hole in Russian denial," BBC, 27 August 2014.
[90] Reuters, Exclusive: Charred tanks in Ukraine point to Russian involvement,"23 October 2014.
[91] The Guardian, "Ukrainian forces and pro-Russia rebels clash over Donetsk airport," 2 October 2014.
[92] Press release, Organization for Security and Co-operation in Europe "Latest from OSCE Special Monitoring Mission (SMM) to Ukraine based on information received as of 18:00 (Kiev time), 19 January 2015," 20 January 2015.
[93] Department of the Army, Hybrid Threat, Training Circular 7-100, 26 November 2010, para. 2-13–2-21; 2-24–2-27; Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 6-38–6-39; Department of the Army, Irregular Opposing Forces, Training Circular 7-100.3, 17 January 2014, para. 1-48–1-51, 1-54; Ch. 2.
[94] Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 4-107–4-108.
[95] Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 4-102 and 6-13.
[96] Sergei Loiko, "How Ukraine's outgunned 'cyborgs' lost Donetsk airport," Los Angeles Times, 28 January 2015, para. 13; information warfare (INFOWAR) video-audio coverage of a tank team engagement at the Donetsk airport on YouTube, "Ukraine War-Novorossian Rebels In Heavy Combat Action During Assault On Donetsk Airport," The tank team sequence is at videotape point 6:11 to 6:42 of the 13:55 minute video-audio tape.
[97] Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 6-38, 6-41, 6-49, and 6-60.
[98] Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 4-134.
[99] Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 4-106, 4-111, 4-114–4-116, and 4-127–4-132; Department of the Army, Exercise Design, Training Circular 7-101, 26 November 2010, para. B-3–B-4, B-9, and B-11.
[100] Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 6-58.
[101] Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 6-41; figure 6-3.
[102] Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 4-118.
[103] Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 4-134.
[104] Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 4-143; 6-45.
[105] Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 6-46–6-47.
[106] Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 6-38–6-39.
[107] Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 4-102 and 6-13.
[108] Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 4-4, 4-102, and 4-107–4-109.
[109] Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 6-41–6-42;
[110] Sergei Loiko. "How Ukraine's outgunned 'cyborgs' lost Donetsk airport." Los Angeles Times. 28 January 2015. para. 19. See also, Oleg Sukhov. "Donetsk airport overrun by rebels, say army volunteers." Kyiv Post. 22 January 2015. para. 3 and 4. See also, "Russian Rebels Declare Victory in Battle of Ukraine's Donetsk Airport [Combat Video]." Dignitas News Service. 16 January 2015. para. 3.

[111] Department of the Army. Opposing Force Tactics. Training Circular 7-100.2. 9 December 2011. para. 3-106, 6-41, 6-46, and 6-54.
[112] Department of the Army. Opposing Force Tactics. Training Circular 7-100.2. 9 December 2011. para. 6-46–6-47.
[113] Department of the Army, Exercise Design, Training Circular 7-101 26 November 2010, para. B-3 and B-12.
[114] Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 6-58.
[115] Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 6-38, 6-41, and 6-60–6-61.
[116] Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 6-41; figure 6-3.
[117] Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 4-118.
[118] Department of the Army, Hybrid Threat, Training Circular 7-100, 26 November 2010, para. 2-13–2-21 and 2-24–2-27; Department of the Army, Opposing Force Tactics, Training Circular 7-100.2, 9 December 2011, para. 6-38–6-39; Department of the Army, Irregular Opposing Forces, Training Circular 7-100.3, 17 January 2014, para. 1-48–1-51, 1-54; Ch 2.